Management of acute care needs of RACF residents

A suite of collaborative pathways for General Practitioners and Registered Nurses

Version 22
March 2020
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Clinical pathway development process

The "Management of acute care needs of RACF residents" pathways were initiated by the Healthcare Improvement Unit, Clinical Excellence Queensland and have been collaboratively developed via a steering committee including the following representatives:

- General Practitioners (GPs)
- Residential Aged Care Facility (RACF) clinicians and manager representatives of both private and Queensland Health (QH) RACFs
- Consumer representation via COTA for older Australians
- Leading Age Services Australia
- Emergency physician
- Geriatricians
- Gerontic nursing representatives
- Palliative care physician representative
- RACF support services' clinical leads and clinicians
- Primary Health Network representative
- Statewide General Medicine Network chair
- Statewide Older Persons Health Clinical Network representative
- Social worker representative

Additionally, subspecialist input was sought for relevant pathways including:

- Endocrinology
- Gastrostomy services
- Infectious diseases physicians
- Neurosurgery
- Pharmacist
- Public Health physicians
- Respiratory medicine
- Urology
- Vascular surgery

The guideline development process involved:

1. Initial draft of each pathway was prepared by one Steering Committee member following review of:
   a. Existing pathways (including those of Comprehensive Aged Residential Emergency and Partners in Assessment Care and Treatment (CARE-PACT) and other national and international RACF support services)
   b. Available published evidence on the topic
   c. State, National and International evidence-based guidelines
2. Draft guideline reviewed by Steering Committee and feedback provided
3. Consultation with subspecialists where relevant
4. Revision of guidelines on basis of feedback from Steering Committee and subspecialist input
5. Endorsement by Steering Committee
6. Consultation with (and amendment in response to feedback from):
   a. Statewide Older Persons Health Clinical Network
   b. Statewide Dementia Clinical Network
   c. Statewide General Medicine Clinical Network
   d. Queensland Emergency Department Strategic Advisory Panel
   e. Statewide Surgical Advisory Committee
   f. General Practice Liaison Network
   g. Statewide RACF Support Services Community of Practice
7. User acceptability testing

These pathways will be reviewed in 2022 by a Healthcare Improvement Unit Steering Committee. Any feedback on the pathways should be emailed to: HIU@health.qld.gov.au
How to use these pathways

These pathways are intended as clinical support tools for management of the acutely unwell patient living in RACFs.

The pathways are designed for use by RACF clinical staff at Registered Nurse (RN), Clinical Nurse (CN), Clinical Nurse Consultant (CNC) or Nurse Practitioner (NP) level, in collaboration with GPs.

The recommendations within these pathways do not indicate an exclusive course of action. They do not replace the need for application of clinical judgement to each individual resident nor variations based on local policies and procedures. The pathways should not replace the clinical judgement of users. If concern exists regarding a resident’s well-being these concerns should be appropriately escalated.

Users should always stay within their scope of clinical practice.

It is recommended that RACFs ensure that they have clinical competency processes for common clinical procedures such as (but not limited to) indwelling catheter insertion, wound assessment and management, subcutaneous fluid administration and tracheostomy care. These pathways do not replace need for such clinical competency processes.

Potential uses of the pathways include:

A. As a clinical support tool for management of residents of aged care facilities who are acutely unwell:

1. Start with assessment of residents' current vital signs
2. Consult #Recognition of the deteriorating resident to assist in determination of whether vital signs are:
   a. Unstable = vital signs are in the red or danger area - refer to #Management of Resident with unstable vital signs pathway
   b. Stable = vital signs in the green or caution area - refer to the pathway most relevant to the residents’ symptoms
3. Take a directed history - if cognitively impaired, review additional history from other staff or family
4. Undertake a focused physical examination
5. Select appropriate pathway in consultation with GP

*** Where these pathways suggest medications, these MUST be prescribed by the GP (or NP) for the individual patient and do not constitute standing orders.

B. As an educational resource for clinical staff across the continuum of care.

These pathways are not designed for use by residents or their families and should not be relied on by residents or families as professional medical advice.
Conditions of use

These pathways are intended as clinical support tools for management of the acutely unwell patients living in RACFs. They are designed for use by RACF clinical staff (at RN, CN, CNC or NP level) in collaboration with GPs.

We provide no guarantee that the information provided is up-to-date or complete and in no circumstance does the information contained within constitute professional advice for management of individual patients.

You are responsible for ensuring use of clinical judgement, and if concern exists on the basis of clinical judgement, additional clinical input should be sought.

The health professional should always remain within their scope of practice.

This manual is only endorsed for use for management of residents of aged care facilities where these are defined as facilities that:

a. Provide residential care to older persons and are funded under the Aged Care Act and are subject to Commonwealth reporting to the System for Payment of Aged Residential Care (SPARC); or
b. Are operated under the National Aboriginal and Torres Strait Islander Aged Care Program.

The pathways are only endorsed for use in QH Hospital and Health Services (HHSs) with an operational RACF acute care support service (RaSS) that meets the RaSS guideline requirements including appropriate clinical governance.

The use of a paper-based copy of the pathways should only be undertaken if this is known to have been endorsed by the HHS RaSS and is known to be the latest version.
### Hospital and Health Service contact information

<table>
<thead>
<tr>
<th>Service</th>
<th>Relevant pathways</th>
<th>Contact details</th>
<th>Hours of operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Insert name of local RaSS service] telephone triage (RACF registered nurses and clinical managers, GPs)</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Insert name of local RaSS service] Consultant (for contact directly by GPs and QAS paramedics only – all other clinicians please see above telephone triage contact number)</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Insert name of local HHS] dementia RACF support services</td>
<td>Behavioural emergencies</td>
<td></td>
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<tr>
<td>Dementia Australia including referrals for Severe Behaviour Response Team</td>
<td>Behavioural emergencies</td>
<td></td>
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<tr>
<td>Gastrostomy support service</td>
<td>Percutaneous gastrostomy tubes</td>
<td></td>
<td></td>
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<tr>
<td>Interventional radiology service</td>
<td>Gastrostomy tubes that have been radiologically inserted (RIGs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Insert name of local HHS] outpatient services</td>
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<td></td>
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<tr>
<td>Cardiology</td>
<td>Chest pain</td>
<td></td>
<td>Referrals via [insert details of local central OPD referral process]</td>
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<tr>
<td>Chronic pain</td>
<td>Pain</td>
<td></td>
<td></td>
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<tr>
<td>Ear, Nose and Throat</td>
<td>Tracheostomy</td>
<td></td>
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<tr>
<td>Endocrinology</td>
<td>Hypoglycaemia</td>
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<td>Falls assessment</td>
<td>Falls</td>
<td></td>
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<tr>
<td>Gastroenterology</td>
<td>Percutaneous gastrostomy tubes</td>
<td></td>
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<tr>
<td>General medicine</td>
<td>COPD, high blood pressure</td>
<td></td>
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<tr>
<td>Infectious diseases</td>
<td>Fever, advice on management of infections due to multi-resistant organisms</td>
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<tr>
<td>Plastic surgery</td>
<td>Wounds (Pressure injuries)</td>
<td></td>
<td></td>
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<tr>
<td>Respiratory</td>
<td>COPD</td>
<td></td>
<td></td>
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<tr>
<td>Urology</td>
<td>Indwelling catheter: blocked</td>
<td></td>
<td></td>
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<tr>
<td>Vascular surgery</td>
<td>Wounds (Arterial and venous lower limb ulcers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Older Persons) Mental Health Service</td>
<td>Behavioural emergencies</td>
<td></td>
<td></td>
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<tr>
<td>Pain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palliative care services</td>
<td>End of life</td>
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<td>Management of residents with unstable vital signs</td>
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<td>Gastroenteritis</td>
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Recognition of the deteriorating resident

Any rapid deterioration in condition should be treated with suspicion: the parameters below should not replace clinical judgement; change in residents' behaviours may also be an indication of deterioration and should prompt review of vital signs as below.

**IF YOU ARE CONCERNED ABOUT A RESIDENT CALL THE GP AND DISCUSS**

<table>
<thead>
<tr>
<th>VITAL SIGN</th>
<th>RED (DANGER) = Potential life-threat, urgent medical review indicated</th>
<th>YELLOW (CAUTION) = Medical review as indicated by presenting complaint</th>
<th>NORMAL = Medical review as indicated by presenting complaint</th>
<th>YELLOW (CAUTION) = Medical review indicated</th>
<th>RED (DANGER) = Potential life-threat, urgent medical review indicated</th>
</tr>
</thead>
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<tr>
<td>Response and cognition</td>
<td>Responsive to pain only or newly unresponsive or sudden change in mental state</td>
<td>Not alert but responsive to voice (unless this resident is normally only responsive to voice)</td>
<td>Alert (or cognition that is normal for this resident)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory rate (breaths per minute)</td>
<td>Less than 6</td>
<td>6 to 9</td>
<td>10 to 24</td>
<td>25 to 30</td>
<td>More than 30</td>
</tr>
<tr>
<td>Respiratory effort</td>
<td>Obvious distress and / or cyanosis (despite oxygen)</td>
<td>Unusually laboured or noisy breathing</td>
<td>Typical for this resident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse oximetry (oxygen saturations)</td>
<td>Less than 88 per cent despite oxygen</td>
<td>88 to 91 per cent despite oxygen</td>
<td>92 to 100 per cent with or without oxygen and usual for this resident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart rate (beats per minute)</td>
<td>Less than 40</td>
<td>40 to 49</td>
<td>50 to 100 (persistently)</td>
<td>101 to 130</td>
<td>More than 130</td>
</tr>
<tr>
<td>Systolic blood pressure (systolic = top; mmHg)</td>
<td>Less than 90</td>
<td>90 to 109</td>
<td>110 to 180 (or in range specified by GP for this patient)</td>
<td>181 to 200 (or higher in an otherwise well resident)</td>
<td>More than 200 with symptoms</td>
</tr>
<tr>
<td>Blood glucose (mmol/L)</td>
<td>Less than 4 and unresponsive to treatment</td>
<td>Persistently 4.0 to 5.9 or less than 4 and responsive to treatment</td>
<td>6 - 15 or in range specified by GP for this patient</td>
<td>Persistently more than 15 and resident well</td>
<td>Persistently more than 15 and resident unwell</td>
</tr>
<tr>
<td>Temperature</td>
<td>Less than 35 degrees Celsius</td>
<td>35 to 35.5 degrees Celsius</td>
<td>35.6 to 37.7 degrees Celsius</td>
<td>37.8 to 39 degrees Celsius</td>
<td>More than 39 degrees Celsius</td>
</tr>
<tr>
<td>Pain</td>
<td>Clearly distressed (despite recent pain-relieving medication)</td>
<td>Obvious discomfort (despite pain-relieving medication)</td>
<td>Nil or tolerable (with or without pain-relieving medication)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**modified from Hewitt, J. Aged Care Emergency Manual, 2013. Sourced from:**

This information does not replace clinical judgement
Management of residents with unstable vital signs

Resident has unstable vital signs: review #Recognition of the deteriorating resident

1. Ensure a staff member remains with resident: apply oxygen to maintain oxygen saturations at 92 to 96 per cent (or if a history of chronic lung disease, 88 to 92 per cent) and support in position of comfort
2. Consult resident’s medical chart for Advance Care Plan or Advance Health Directive
3. If not immediately life-threatening review #Checklist for contact and ring GP

Is resident on a palliative pathway?

YES

Consult palliative care provider**

NO

Does resident have a documented wish to NOT BE transferred to hospital?

YES

GP / after-hours doctor reviews and determines appropriate management in consultation with the resident (or their substitute health decision maker)

NO

NEED FOR FURTHER SUPPORT

Refer to HHS RaSS at GP discretion

** Palliative care provider is the nominated clinician over-seeing the resident’s palliative care - this may be, for example, the resident’s GP or a nominated palliative care service

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## Checklist for contact of GP or RaSS

<table>
<thead>
<tr>
<th>STEP</th>
<th>ACTION</th>
<th>DONE?</th>
</tr>
</thead>
</table>
| 1    | **Collect resident’s medical record and medication chart including:**  
- Results of recent tests  
- Recent changes to medications  
- Substitute health decision maker contact details (e.g. enduring power of attorney (EPOA))  
- Contact details for treating GP | ☐ |
| 2    | Have a copy of the relevant RACF decision support tool in front of you | ☐ |
| 3    | Check the resident’s Advance Care Plan (ACP) / Advance Health Directive (AHD) for documented wishes | ☐ |
| 4    | Undertake a full set of **vital signs** including:  
- Response and cognition  
- Airway and breathing assessment (respiratory rate and effort; oxygen saturations)  
- Circulation assessment (pulse and blood pressure)  
- Disability assessment (including blood glucose)  
- Temperature and pain assessment (use cognition appropriate tool) | ☐ |
| 5    | **Pen and paper** available to document any instructions | ☐ |
| 6    | Prepare to discuss with GP or a RaSS in the ISBAR format  
**Identify** yourself, your role and where you are calling from  
**Situation** or the reason for your call and the current problem e.g. Chest pain  
**Background** including past medical history of resident and usual level of function  
**Assessment** including  
- Vital signs  
- Other relevant clinical findings including any recent behavioural changes  
- Advance Care Plan wishes  
- Recent medication changes  
- Recent investigation results  
**Recommendations** arrived at in collaboration with GP or a RaSS | ☐ |
| 7    | If resident is to be reviewed in facility by GP or a RaSS or to be transferred to hospital – prepare documentation including copies of:  
- Facility name and 24 hour contact details for RN or clinical manager  
- Summary of reason for transfer and recent vital signs  
- Past medical history and baseline level of function  
- Recent medical notes, results of investigations  
- Recent changes to medications  
- Current (regular, prn and short-course) medication AND sign-off charts  
- Advance Care Plan or Advance Health Directive  
- Contact details for next of kin and substitute health decision makers | ☐ |
| 8    | **Notify next of kin** / substitute health decision maker of resident condition and ensure they agree with the recommendations of GP / RaSS – if not, notify GP or RaSS | ☐ |
**Behavioural emergencies**

Resident displaying physically threatening behaviour to self or others

Is there an immediate risk to staff or to resident/s safety from violent behaviour?

- **YES**
  - Call QAS on 000 and implement immediate management strategies (review practice point 1) and notify substitute health decision maker and *HHS RaSS*

- **NO**
  - **STABLE VITALS**
    - **YES**
      - Undertake cognition-appropriate pain assessment (review appendix 1)
    - **NO**
      - Review and address identifiable triggers for challenging behaviour (review practice point 3)

  - **PAIN PRESENT**
    - Administer analgesia and refer to *Pain management pathway* and monitor behaviour

  - **UNSTABLE VITALS**
    - Refer to *Management of residents with unstable vital signs*

  - **UNSTABLE VITALS**
    - **YES**
      - Is there evidence of delirium or is there an identifiable physical cause? (review practice point 3)
    - **NO**
      - UNSTABLE VITALS

  - **STABLE VITALS**
    - **YES**
      - Undertake cognition-appropriate pain assessment (review appendix 1)
    - **NO**
      - Review and address identifiable triggers for challenging behaviour (review practice point 3)

  - **ONGOING BEHAVIOURAL CHALLENGES**
    - Undertake Neuropsychiatric Inventory (review appendix 1)

Is there an immediate risk to staff or to resident/s safety from violent behaviour?

**1.** Employ immediate management strategies: (review practice point 1)

**2.** Check vital signs (review *Recognition of the deteriorating resident*)

**3.** If not immediately life-threatening (review *Checklist for contact and ring GP*)

**4.** Initiate supportive care (review practice point 2)

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This information does not replace clinical judgement
### Behavioural emergencies practice points [1-4]

<table>
<thead>
<tr>
<th><strong>Immediate management strategies</strong></th>
<th><strong>PIECES framework for assessment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Reduce risk:</strong></td>
<td><strong>P - PHYSICAL:</strong></td>
</tr>
<tr>
<td>- Remove other residents from danger</td>
<td>1. Pain - use cognition appropriate pain tool</td>
</tr>
<tr>
<td>- Remove potentially harmful objects if safe to do so</td>
<td>2. Urinary retention / constipation</td>
</tr>
<tr>
<td>- Remove distractions</td>
<td>3. New injury - recent falls?</td>
</tr>
<tr>
<td>- Stand back from the resident</td>
<td>4. Wound / skin tear</td>
</tr>
<tr>
<td><strong>2. Verbal de-escalation:</strong></td>
<td>5. Polypharmacy: community pharmacist review</td>
</tr>
<tr>
<td>- Use a calm voice with a respectful tone and a slow, even speed</td>
<td>6. Infections</td>
</tr>
<tr>
<td>- Use eye contact consistent with the person’s cultural needs</td>
<td>7. Delirium: perform Confusion Assessment Method (CAM)</td>
</tr>
<tr>
<td>- Use the residents name</td>
<td><strong>I - INTELLECTUAL:</strong></td>
</tr>
<tr>
<td>- Use simple sentences without patronising</td>
<td>1. Memory, visual perception and cognition assessment</td>
</tr>
<tr>
<td>- Encourage resident to talk about what they are feeling</td>
<td><strong>E - EMOTIONAL:</strong></td>
</tr>
<tr>
<td>- Communicate empathy</td>
<td>1. Are there neurovegetative signs of depression?</td>
</tr>
<tr>
<td>- Enter the person’s reality, do not argue</td>
<td>2. Undertake a Neuropsychiatric Inventory</td>
</tr>
<tr>
<td><strong>3. Distraction and redirection:</strong></td>
<td>3. Grief or Loss?</td>
</tr>
<tr>
<td>- Options include redirecting to an object or past activity of interest; changing the subject</td>
<td><strong>C - CAPABILITY:</strong></td>
</tr>
<tr>
<td><strong>Supportive care</strong></td>
<td>1. Undertake a capability assessment</td>
</tr>
<tr>
<td>1. Orientation prompts</td>
<td>2. Support maximising of capabilities and</td>
</tr>
<tr>
<td>2. Family / volunteer involvement where appropriate; where indicated, utilise a nursing special</td>
<td>3. Provide meaningful activities</td>
</tr>
<tr>
<td>3. Adequate nutrition and hydration</td>
<td><strong>E - ENVIRONMENTAL:</strong></td>
</tr>
<tr>
<td>4. Regular mobilisation as tolerated</td>
<td>1. Orientation prompts</td>
</tr>
<tr>
<td>5. Support of a normal sleep-wake cycle</td>
<td>2. Assess for and remove environmental / situational triggers: startle response to noise of door shutting; meal-times; showering</td>
</tr>
<tr>
<td>6. Ensure availability of hearing aids / glasses as indicated</td>
<td>3. Change to environment or routine</td>
</tr>
<tr>
<td>7. Provide explanation and reassurance to resident to counteract fear</td>
<td><strong>S - SOCIAL SELF:</strong></td>
</tr>
<tr>
<td>8. Provision of meaningful activity</td>
<td>1. Review persons life history - are there any contributors from their life-experience?</td>
</tr>
<tr>
<td><strong>Pharmacologic approaches</strong></td>
<td>2. Cultural contributors to behaviours? e.g. language barrier with secondary frustration</td>
</tr>
<tr>
<td>1. Review prior history and determine whether there have been previously effective management strategies utilised</td>
<td>3. Identify and remedy unaddressed social needs e.g. boredom; lack of physical exercise</td>
</tr>
<tr>
<td>2. Review EXISTING MEDICATIONS for contributors to behavioural disturbance:</td>
<td><strong>(5) Behavioural emergency resources</strong></td>
</tr>
<tr>
<td>- Anticholinergics e.g. oxybutynin, ranitidine, promethazine / anti-epileptics / Levo-dopa and dopamine agonists / Opioids / psychotropics / corticosteroids / antibiotics / antivirals</td>
<td><strong>HHS relevant services:</strong></td>
</tr>
<tr>
<td>3. NON-PHARMACOLOGICAL METHODS should be tried unless immediate threat of harm</td>
<td><strong>Dementia support Australia (Dementia Behaviour Management Advisory Service and Severe Behavioural Response Teams)</strong> - 1800 699 799</td>
</tr>
<tr>
<td>4. EFFECTIVENESS OF MEDICATIONS IN BEHAVIOURAL DISTURBANCE IN DEMENTIA IS LOW and there is increased risk of mortality in those treated pharmacologically</td>
<td>Educational resources available at: <a href="https://www.dementia.com.au/resources/library">https://www.dementia.com.au/resources/library</a></td>
</tr>
<tr>
<td>If non-pharmacological methods exhausted, consider in consultation with GP and substitute health decision maker for resident:</td>
<td>Dementia Training Australia resources including Dementia Training Australia Quick Reference Cards available at: <a href="https://www.dementiatrainingaustralia.com.au">https://www.dementiatrainingaustralia.com.au</a></td>
</tr>
<tr>
<td>- Risperidone commence at 0.25mg - 0.5mg / day, gradually increasing if needed to maximum 2mg / day (divided doses) OR</td>
<td>Behaviour Management: a guide to good practice 2012. Dementia Collaborative Research Centre</td>
</tr>
<tr>
<td>- Olanzapine 2.5mg daily OR</td>
<td><strong>CAUTION: HIGH FALLS RISK</strong></td>
</tr>
</tbody>
</table>
| - Can trial oxazepam e.g. 7.5mg orally once to three times daily | **This information does not replace clinical judgement**

Provided for information only - Contact HIU@health.qld.gov.au
Resident with suspected cellulitis

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS

Refer to #Management of residents with unstable vital signs

STABLE VITALS

Is there any risk feature/s:
• Fevers
• Rigors (uncontrollable shivering)
• Associated diabetic ulcer or deep wound
• Significant comorbidity requiring stabilisation
• Altered mental status (different mental state to usual)
• Vomiting
• Involves face or orbits
• Lymphangitis (erythema tracking up limb)

1. Confirm patient meets diagnostic criteria for cellulitis (review practice points 1 and 2)
2. Mark margin of cellulitis with skin marker
3. Swab exudate if ulcerating cellulitis with discharge and send for m/c/s
4. Other investigations as indicated
5. Strict elevation of cellulitic limb (caution if resident is cognitively impaired)
6. Oral antibiotics guided by allergies and prior sensitivities (review practice point 3)
7. If associated wound review Therapeutic Guidelines for further management advice

Refer to HHS RaSS at GP discretion

Does the resident develop risk features or systemic symptoms or fail to respond to oral antibiotics within 72 hours?

YES

Continue oral antibiotics for 5 days in uncomplicated cellulitis (extend treatment if infection not improved in this time) and review and treat risk factors for cellulitis (review practice point 4)

NO

NO

YES

Contact HIU@health.qld.gov.au

Provided for information only - Contact HIU@health.qld.gov.au
Cellulitis practice points [5-7]

<table>
<thead>
<tr>
<th>(1) Diagnostic criteria for cellulitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Skin almost always hot, shiny, bright red with a well demarcated edge that spreads if left untreated</td>
</tr>
<tr>
<td>2. Often painful to touch</td>
</tr>
<tr>
<td>3. In severe disease may be associated with vesicles / bullae</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) When to consider alternate diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cellulitis of the lower limbs is usually unilateral - bilateral cellulitis is RARE - if bilateral findings are present consider alternate diagnoses including:</td>
</tr>
<tr>
<td>• oedema (with or without blisters)</td>
</tr>
<tr>
<td>• deep venous thrombosis (DVT)</td>
</tr>
<tr>
<td>• chronic venous insufficiency or venous eczema</td>
</tr>
<tr>
<td>• liposclerosis</td>
</tr>
<tr>
<td>• vasculitis</td>
</tr>
<tr>
<td>2. Chronic venous insufficiency involves localised or diffuse involvement of the gaiter area; erythema with dry, scaly or weepy skin; brown discolouration of skin common; if erythema present, it has a diffuse edge</td>
</tr>
<tr>
<td>3. Presence of unilateral vesicular eruptions and pain requires consideration of Herpes zoster or shingles; early recognition and institution of antiviral therapy (e.g. acyclovir) may reduce incidence of post-herpetic neuralgia and improve time to resolution. Erysipelas (due to group A streptococci) may sometimes also be accompanied by vesicles, though it is differentiated from Herpes zoster by larger vesicles and bullae, often with haemorrhage, and lack of dermatomal distribution</td>
</tr>
<tr>
<td>4. Presence of pruritus should prompt consideration of presence of underlying scabies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) Antibiotic selection in cellulitis: Consider allergies, organism sensitivities and comorbidities; consult Therapeutic guidelines if cellulitis is associated with a wound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. If no penicillin allergy and no known MRSA:</td>
</tr>
<tr>
<td>Use Dicloxacillin or Flucloxacillin 500mg orally 6 hourly for 5 days</td>
</tr>
<tr>
<td>2. If non-immediate penicillin allergy and no known MRSA:</td>
</tr>
<tr>
<td>Use Cefalexin 500mg orally 6 hourly for 5 days</td>
</tr>
<tr>
<td>3. If immediate (i.e. anaphylactic) penicillin allergy:</td>
</tr>
<tr>
<td>Use Clindamycin 450mg orally 8 hourly for 5 days</td>
</tr>
<tr>
<td>4. If known MRSA colonisation / infection:</td>
</tr>
<tr>
<td>If known to be clindamycin-susceptible, use Clindamycin 450mg orally 8 hourly for 5 days; otherwise, use trimethoprim+sulfamethoxazole 160 + 800mg orally 12 hourly for 5 days</td>
</tr>
</tbody>
</table>

| (4) Risk factors for cellulitis - prevention of recurrent cellulitis |

Management of risk factors for cellulitis:

1. Examine interdigital toe spaces and treat fissuring, scaling or tinea pedis |
2. Treat limb oedema |
3. If chronic venous insufficiency, consider use of compression stockings (review #Venous Leg Ulcer Flow Chart - appendix 4) |
4. Manage wounds or pressure injuries |
5. Improve glycaemic control in diabetes |
6. Treat nutritional deficiency, with particular emphasis on adequate protein intake in those with normal renal function and adequate micronutrient intake through a balanced diet |

Maintain skin integrity:

1. Optimise mobility and minimise falls risk, particularly through removal of environmental trip or injury hazards, use of an appropriate mobility support aid, attention to bowel and / or bladder incontinence |
2. Regular pressure area care for non-ambulant residents |
3. Ensure good hygiene and regular use of moisturiser |

IF above factors addressed and recurrent cellulitis continues to occur (3 to 4 episodes per year) then consider use of prophylactic antibiotics in consultation with an infectious diseases specialist.
This information does not replace clinical judgement.
Chest pain practice points [8-11]

(1) Alternate causes for chest pain
NB. careful assessment is indicated for all chest pain; cardiac ischemia may present atypically in older persons and the pain may meet any of the below descriptors of alternate causes for chest pain

CHEST pain that has pleuritic nature (worse on inspiration):
- Pulmonary embolism (PE) - consider if associated shortness of breath / hemoptysis / risks for PE
- Pneumonia - consider if febrile / productive sputum
- Pneumothorax - consider if recent fall / trauma or history of underlying pulmonary disease

CHEST pain that has sharp, tearing nature and is maximal at onset:
- Aortic dissection

CHEST pain that is worse on lying down, relieved on leaning forward:
- Pericarditis

CHEST pain that is reproduced on palpation or on movement:
- Musculoskeletal causes eg. rib fracture

CHEST pain that is burning and retrosternal
- may be due to gastroesophageal reflux; however, cardiac pain may also be described in these terms

(2) Contraindications to GTN or aspirin

GTN is contraindicated if:
1. Systolic (top) blood pressure is < 110mmHg
2. Severe anemia (Hemoglobin or Hb < 80)
3. Severe aortic stenosis or obstructive cardiomyopathy
4. Sildenafil citrate (“Viagra”) or analogues administered in previous 24 hours
5. Known hypersensitivity to GTN

Aspirin contraindicated if:
1. Known hypersensitivity or allergy to aspirin or non-steroidal anti-inflammatory drugs
2. Aspirin sensitive asthma
3. Severe active bleeding

(3) Precipitants of angina

1. Acute coronary syndrome - suspect particularly if pain onset at rest or ongoing chest pain or acceleration of chest pain symptoms (unstable angina)
2. Exacerbations of chronic co-morbid conditions e.g. chronic obstructive pulmonary disease (COPD)
3. Development of an acute medical illness e.g. sepsis, anaemia, arrhythmias, hypertensive urgencies, thyrotoxicosis
4. Progression of valvular heart disease
5. Medications that precipitate tachycardia (e.g. anticholinergic medications)

(4) Chest pain resources

- **HHS cardiology services**
- Heart Foundation clinical guidelines
Chronic obstructive pulmonary disease (COPD)

Resident with COPD and increased shortness of breath

Does resident have a COPD action plan?

YES

Follow COPD action plan and liaise with GP

NO

Consider alternate cause for symptoms

Does resident have clinical features of an acute exacerbation of COPD? (review practice point 1)

YES

STABLE VITALS and no drowsiness or vomiting

UNSTABLE VITALS or new drowsiness or vomiting

NO

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

With GP input commence:

1. **2.5mg to 5mg nebulised salbutamol** and then continue salbutamol regularly as per GP order - nebulised salbutamol is ideally delivered using compressed air rather than oxygen - this allows simultaneous delivery of controlled oxygen by nasal prongs where required (review point 4 below)

2. If GP identifies any of:
   - New more purulent sputum with increased breathlessness
   - Clinical signs of pneumonia

   then commence either (check allergies prior):
   - *Amoxicillin* 500mg orally every 8 hours for 5 days OR
   - *Doxycycline* 200mg orally for first dose and then 100mg orally once daily for 5 days

3. GP to consider **prednisone** 30mg to 50mg daily for 5 to 7 days unless contraindicated

4. Maintain **oxygen** saturations at 88 to 92 per cent (note: oxygen therapy should be controlled - usually 0.5L to 2.0L/minute via nasal prongs titrated to support oxygen saturations of 88 to 92 per cent in order to reduce death rates)

5. **Monitor** for increased shortness of breath or worsening symptoms or unstable vital signs (particularly for evidence of increasing drowsiness, oxygen saturations < 88 per cent despite supplemental oxygen or evidence of an increasing oxygen requirement)
### (1) Criteria to diagnose exacerbations of COPD

**Diagnosis of an exacerbation of COPD** is clinical and NICE guidelines define this as:
“A sustained worsening of the patient’s symptoms from their usual state that is beyond normal day-to-day variations and is acute in onset”.

Commonly reported symptoms are:
1. **Worsening breathlessness**
2. Increased **cough**
3. Increased **sputum** production
4. **Change in sputum colour**

Sending sputum samples for culture is not recommended in routine practice

Pulse oximetry is of value if there are clinical features of an acute exacerbation

### (2) Pharmacologic management of exacerbations of COPD

1. **Increased doses of short-acting bronchodilators:**
   In residents of aged care facilities, nebulised salbutamol may be more useful than hand-held delivery systems particularly in cognitively impaired
   **Nebuliser should be driven by compressed air not oxygen (with supplemental oxygen given by nasal prongs simultaneously if required)**

2. **Steroids:**
   In the absence of significant contraindications, oral corticosteroids should be considered in those with an exacerbation with a significant increase in breathlessness which interferes with daily activities; prednisone 30mg to 50mg orally once daily should be prescribed for 5 to 7 days - there is no benefit in steroid therapy beyond 14 days

3. **Antibiotics:**
   Commence antibiotics if either of:
   - NEW more purulent sputum with increased breathlessness or
   - Clinical signs of pneumonia
   In the absence of the above symptoms there is no indication for antibiotics for COPD exacerbations

4. **Oxygen:**
   Controlled oxygen therapy is associated with a significant reduction in mortality when compared with high-flow oxygen in acute exacerbations of COPD
   **Influenza and pneumococcal vaccination when well, reduce hospital admissions in this cohort**

### (3) Oxygen in residents with COPD

If delivered inappropriately may cause respiratory depression. CONTROLLED oxygen delivery (0.5 - 2.0L/minute via nasal prongs) is indicated for acute hypoxemia ($O_2$ saturations < 88 - 92 per cent) in residents with exacerbations of COPD

### (4) COPD resources

- For residents with frequent exacerbations consider referral to Respiratory or General Medicine outpatients of HHS - review **HHS specific OPD referral guidelines**
- **Respiratory therapeutic guidelines** v5, 2015

This information does not replace clinical judgement
**Congestive cardiac failure (CCF)**

Resident with suspected CCF*

1. Sit resident upright in position of comfort and apply oxygen to maintain oxygen saturations at 92 to 96 per cent (if history of COPD or chronic lung disease aim for 88 to 92 per cent)
2. Check vital signs (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening review #Checklist for contact and ring GP

**UNSTABLE VITALS**

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

**STABLE VITALS**

1. Review and treat underlying causes (review practice point 1)
2. Pharmacologic therapy (review practice point 2)
   - If clinical evidence of fluid overload, consider starting, or if existing, increasing diuretic therapy - usually frusemide in initial instance
   - If significantly hypertensive with pulmonary oedema, consider GTN sublingually
3. Treat chest pain - refer to #Chest pain
4. Non-pharmacologic management (review practice point 3)

**SYMPTOMS SETTLE AND CLINICAL SIGNS OF HEART FAILURE RESOLVE?**

YES

RACE and GP to institute guidelines for preventing exacerbations CCF (review practice points 2 and 3)

NO

Refer to HHS RaSS at GP discretion

*Suspect CCF in residents who have any of the following symptoms or examination findings, where no alternate more likely cause is identified:
1. Progressive exertional dyspnoea or shortness of breath
2. Orthopnoea or resident props self up on a number of pillows to sleep
3. Paroxysmal nocturnal dyspnoea or sudden shortness of breath during sleep
4. Dry irritating cough that may occur particularly at night, where there is no other cause identified
5. Progressive abdominal distension or ankle swelling
6. An elevated jugular venous pressure
7. Bilateral inspiratory crackles on chest auscultation (note wheeze may predominate)
Congestive cardiac failure (CCF) practice points [16-19]

(1) Common underlying causes of CCF

1. High blood pressure
2. Acute myocardial ischaemia (angina or myocardial infarction) - if chest pain present, refer to chest pain pathway
3. Medication-induced causes - cease contributing medications where possible e.g. calcium channel blockers (e.g. verapamil or diltiazem); corticosteroids; NSAIDs; urinary alkalinisers
4. Arrhythmias - suspect if new significant tachycardia, bradycardia or new irregular pulse rate
5. Hyperthyroidism or hypothyroidism - check thyroid function tests
6. Underlying infection
7. Severe anaemia - check full blood count
8. Acute valvular dysfunction

(2) Pharmacologic management of residents with exacerbations of CCF

1. Review and treat underlying precipitants (review above)
2. Diuretic therapy indicated for fluid overload symptom control:
   - early commencement in acute exacerbations of CCF associated with improved outcomes
   - individualise dose to patient status, history of renal impairment and usual maintenance dose of loop diuretic
   - if acutely short of breath then intravenous (IV) diuretics may be superior to oral; if shortness of breath subacute then oral diuretics may be suitable
   - unless contraindicated, consider commencement of frusemide at 20mg to 40mg daily (in acute setting, if already on maintenance dose of frusemide, usually require a dose equal to or double to the usual maintenance dose)
   - if IV frusemide utilised - if good symptomatic response within 60 minutes switch to oral dosing; if no response, consider repeat IV dose
   - monitor potassium and creatinine - check within 24 hours of initiation of therapy and then weekly during titration of diuretic
3. If significantly hypertensive with pulmonary oedema, consider use of GTN
4. Treat chest pain - refer to #Chest pain
5. When stable and no longer acutely unwell, distinguish between heart failure with impaired left ventricular function (systolic heart failure) and heart failure with preserved ejection fraction (or diastolic heart failure). Residents are likely to have systolic dysfunction if there is:
   - a. Echocardiography demonstrating reduced left ventricular ejection fraction within the last 5 years
   - b. Past history of myocardial infarction (documented history or multiple significant Q waves)
   - c. Gallop heart sounds and displaced apex beat
   - d. Marked cardiomegaly on CXR

In residents with systolic dysfunction, when clinically stable and euvoluemic, consider addition of:
   - a. Angiotensin converting enzyme (ACE) inhibitor or angiotensin II receptor blocker (ARB) - check serum potassium etc.
   - b. Beta-blockers if evidence of left ventricular failure

Note: Beta-blockers are relatively contraindicated in acute phase if still in overt heart failure

(3) Non-pharmacologic management of residents with CCF

Monitor:
1. Daily weighs - notify GP if 2kg or more weight gain over 1 to 2 days
2. Postural drop in blood pressure - institute falls risk management plan
3. Monitor fluid intake - where indicated, restrict to 1.5L per day (caution in summer)
4. Restrict salt intake
5. Establish Advance Care Plan

This information does not replace clinical judgement
1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP
3. Review for risk features (review practice point 1)

**UNSTABLE VITALS or RISK FEATURES**

- Refer to #Management of resident with unstable vital signs

**STABLE VITALS**

- 1. Assess for and treat underlying cause (review practice point 2)
- 2. Review for causative drugs and cease where possible (review practice point 3)
- 3. Review bowel chart
- 4. Ensure:
  - Implementation of non-pharmacological strategies (review practice point 4)
  - Implementation of initial or maintenance pharmacological strategies (review practice point 5)

**BLOOD OR MASS IN RECTUM?**

- Is constipation ongoing or present already for 3 days?
  - If yes, perform gentle digital rectal examination (credentialed practitioners only)

**SOFT STOOL IN RECTUM?**

1. If no evidence of intestinal obstruction or heart failure, trial an osmotic laxative: Microlax enema PR or
   - If immobile, 1-2 sachets Movicol orally daily, each in 125mL water (care in cardiovascular disease) or
   - If well-hydrated, sorbitol liquid 20mL orally once daily increasing if required to three times a day or
   - Lactulose 15mL to 30mL orally once to twice daily
2. If no response, add stimulant laxative (contraindicated in active inflammatory bowel disease or diverticulitis):
   - Coloxyl and senna two tablets orally twice daily or
   - Bisacodyl enema

**HARD STOOL IN RECTUM?**

1. If no evidence of intestinal obstruction or heart failure, trial one of:
   - Glycerol suppository 2.8g PR - allow to remain insitu for 15-30 minutes
   - Movicol - up to 8 sachets in severe impaction (dissolved in 1L of water and consumed orally within 6 hours) daily for up to 3 days
2. If no response, consider digital disimpaction

**RESPONDS**

- Initiate maintenance management (review practice points 4 and 5)
- Reassess response

**NO RESPONSE**

- Refer to HHS RaSS at GP discretion

*This information does not replace clinical judgement*
## Constipation practice points [20-22]

<table>
<thead>
<tr>
<th>(1) Risk features in constipation</th>
<th>(2) Causes of constipation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Iron deficiency anemia</td>
<td>• Mechanical obstruction - ongoing vomiting and abdominal pain</td>
</tr>
<tr>
<td>• Vomiting and abdominal pain</td>
<td>• Faecal impaction</td>
</tr>
<tr>
<td>• Rectal bleeding</td>
<td>• Dehydration</td>
</tr>
<tr>
<td>• Rectal prolapse</td>
<td>• Endocrine / metabolic disorders eg. hypothyroidism, chronic kidney disease, diabetes, electrolyte disturbance e.g. hypercalcemia, hypokalemia</td>
</tr>
<tr>
<td>• Weight loss</td>
<td>• Neurologic disorders eg. Spinal cord pathology, Parkinson's disease, autonomic neuropathy, dementia, depression</td>
</tr>
<tr>
<td>• Lower back pain that is new or worsening</td>
<td>• Gastrointestinal and local painful conditions eg. anal fissure, abscess, haemorrhoids, rectal prolapse</td>
</tr>
<tr>
<td></td>
<td>• Dietary eg. reduced oral intake, fluid depletion, low fibre diet</td>
</tr>
</tbody>
</table>

### (3) Drugs causing constipation

- Aluminium or calcium-containing antacids
- Anticholinergics eg. tricyclic antidepressants, some antiparkinsonian drugs, antipsychotics, antispasmodics, antihistamines
- Calcium supplements
- Calcium-channel blockers
- Diuretics
- Iron supplements
- Non-steroidal anti-inflammatory agents (NSAIDs)
- Opioid analgesics

### (4) Non-pharmacological management

In all residents ensure:
- Adequate fluid intake
- Adequate dietary fibre intake
- Toilet each morning and thirty minutes after meals or after a hot drink when gastrocolic reflex is maximal
- Increase exercise if able
- Improve access to toileting facilities: ensure privacy and comfort; mobility assistance

### (5) Pharmacological management

There is limited evidence related to use of laxatives in older persons. Consider the following:

- Mobile residents with low-fibre diet: increase dietary fibre or add bulk forming laxatives - **note: contraindicated in intestinal obstruction / faecal impaction / colonic atony**; avoid in immobile or fluid restricted residents
- Immobile residents: sorbitol 15mL-30mL once daily
- Opioid-induced constipation: coloxyl with senna 1-2 tablets regularly at bedtime (up to 4 tablets/day) - **note: contraindicated in active inflammatory bowel disease or diverticulitis**
- For palliative care residents prescribed opioid analgesia, consider methylnaltrexone - for dosing review Australian Medicines Handbook
- Avoid long-term use of stimulant laxatives

---

*This information does not replace clinical judgement*
Deep venous thrombosis (DVT)

**Resident with suspected DVT**

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP

**UNSTABLE VITALS**

Refer to #Management of resident with unstable vital signs

**STABLE VITALS**

On GP assessment, does the resident have a high or low probability of DVT? (review practice point 1)

**HIGH PROBABILITY**

1. GP to arrange a doppler ultrasound
2. If delay to doppler, GP to consider therapeutic enoxaparin (clexane) if no contraindications: 1mg / kg (round down to nearest 10mg) subcutaneously twice daily to a maximum of 100mg bd; if Creatinine Clearance is less than 30mL/ min - enoxaparin is relatively contraindicated - consider consultation with HHS RaSS at GP discretion
3. If enoxaparin commenced, doppler may be undertaken within 24 to 48 hours

**DOPPLER NEGATIVE**

Investigate for alternate causes of symptoms if indicated; if no alternate cause determined consider repeat doppler ultrasound in 1 week

**LOW or MODERATE PROBABILITY**

**NEGATIVE**

Perform a sensitive d-dimer test

**POSITIVE**

Refer to HHS RaSS at GP discretion

**DOPPLER POSITIVE OR UNABLE TO OBTAIN PRIVATE DOPPLER WITHIN CLINICALLY APPROPRIATE TIME FRAME**

Consider alternate cause for symptoms

* Suspect DVT in residents who have any of the following symptoms or examination findings, where no alternate more likely cause is identified:

1. Unilateral swelling of the entire leg
2. Difference in calf circumference of > 3cm between left and right leg
3. Unilateral pitting lower limb oedema
4. Pain and tenderness along the course of major lower limb veins
5. Dilated superficial veins of the involved lower limb

This information does not replace clinical judgement
# Deep venous thrombosis (DVT) practice points [23-25]

## (1) Assessing probability of DVT (modified Well’s criteria)

<table>
<thead>
<tr>
<th>CLINICAL FEATURE</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenderness along entire deep vein system</td>
<td>+1</td>
</tr>
<tr>
<td>Swelling of entire leg</td>
<td>+1</td>
</tr>
<tr>
<td>Affected calf at least 3cm larger in circumference than non-affected calf</td>
<td>+1</td>
</tr>
<tr>
<td>Pitting oedema (confined to affected leg)</td>
<td>+1</td>
</tr>
<tr>
<td>Collateral superficial veins (non-varicose)</td>
<td>+1</td>
</tr>
</tbody>
</table>

**RISK FACTORS PRESENT**

- Active cancer                                                                    | +1    |
- Prolonged immobility or paralysis or recent plaster immobilisation of lower extremities | +1    |
- Recently bedridden for 3 days or more or major surgery within previous 12 weeks requiring general or regional anaesthesia | +1    |
- Previously documented DVT                                                         | +1    |
- Alternative diagnosis at least as likely as DVT                                  | -2    |

**INTERPRETATION:**

IF TOTAL SCORE IS:

- > 2 = High probability (80 per cent) of DVT
- 1 - 2 = Moderate probability (33 per cent) of DVT
- < 1 = Low probability (5 per cent) of DVT

## (2) DVT resources

- Private radiology providers may accept GP referrals of RACF residents for doppler ultrasound
- Please contact your local private radiology provider to confirm and if resident requires ambulance transfer, please confirm that they have the ability to accept stretcher patients prior to transfer AND that doppler ultrasound is available within a clinically appropriate time frame
- Your local **HHS RaSS** may be able to advise on potential avenues to access doppler ultrasound services

---

This information does not replace clinical judgement
End of life management
Please utilise in conjunction with Queensland Government Residential Aged Care End of Life Care Pathway (RAC EoLCP)

Resident suspected to be in terminal phase of life

1. Review signs and symptoms associated with terminal phase of life (review practice point 1)
2. If not immediately life-threatening review #Checklist for contact and ring GP

3 or more signs and symptoms associated with terminal phase of life are present?

YES

Consider cause for symptoms and refer to appropriate clinical pathway

NO

Refer to
**HHS community palliative care service**
or
**HHS RaSS**
at GP discretion

NOT ALL AGREE

Obtain opinions of ALL of the following in relation to commencement of RAC EoLCP:
1. Resident (if resident does not have capacity to make decisions consult residents Advance Care Plan or Advance Health Directive)
2. If the resident agrees (or if lacks capacity to make decisions) involve residents substitute health decision maker
3. GP
4. RACF clinical staff and multidisciplinary team

ALL AGREE

1. Commence on RAC EoLCP (review appendix 2)
2. GP nominates palliative care provider and documents updated Advance Care Plan in consultation with resident or substitute health decision maker

GP and RACF staff provide ongoing palliative care +/- referral to **HHS community palliative care service** at GP discretion (review practice point 2); if palliative care unable to review resident in an appropriate time frame and GP requests second opinion, refer to **HHS RaSS**
## End of life management practice points [26]

### (1) Signs and symptoms associated with terminal phase of life

If 3 or more of the below signs and symptoms are present, **AND** the GP, multidisciplinary team and resident (or their substitute health decision maker) **ALL** agree, it is appropriate to commence the End Of Life Pathway (RAC EoLP):

1. Experiencing rapid day to day deterioration that is not reversible
2. Requiring more frequent interventions
3. Becoming semi-conscious, with lapses into unconsciousness
4. Increasing loss of ability to swallow
5. Refusing or unable to take food, fluids or oral medications
6. Irreversible weight loss
7. An acute event has occurred requiring revision of treatment goals
8. Profound weakness
9. Changes in breathing patterns

**PLEASE note:** in some cases residents may be commenced on the RAC EoLCP and then taken off the pathway if their condition improves.

### (2) Palliative care resources

**Specialist community palliative care services** work in collaboration with primary care providers and often provide:

1. Visits to the resident in the RACF
2. 24 hour telephone on-call services
3. Admission to inpatient palliative care beds where indicated

- **HHS specific community palliative care services**

This information does not replace clinical judgement
Resident with fall or suspected fall

1. Check vital signs (review Recognition of the deteriorating resident)
2. If not immediately life-threatening review Checklist for contact and ring GP
3. Do not move resident until assessed for injuries unless immediate danger

Undertake structured head to toe assessment of resident to identify:
1. Potential cause of fall
2. Injuries due to fall (review practice point 1)

Review Advance Care Plan and refer to Management of residents with unstable vital signs

UNSTABLE VITALS

Is there any risk feature:
- Severe pain
- Any neck pain
- Significant bleeding
- Inability to mobilise as usual
- Altered mental status
- Bony deformity
- Known bleeding disorder or on anticoagulant or anti-platelet agents
- Major head trauma
- Severe headache or vomiting
- Fall from >1 metre

Does the resident have suspected minor fracture, laceration, bruising?

YES

Refer to HHS RASS at GP discretion

RECURRENT FALLS

UNSTABLE VITALS or DEVELOPS RISK FEATURE

1. Assess for and treat pain
2. Assess for and treat underlying cause for fall
3. Monitor vital signs including conscious level and neurological observations every:
   i. 15 minutes for 1 hour; then if normal:
   ii. 30 minutes for 2 hours; then if normal:
   iii. 1 hour for 4 hours; then as per GP input
4. Review falls assessment management plan and initiate physiotherapy review where indicated
5. If recurrent falls consider geriatrician review
6. Notify substitute health decision maker of fall

Provided for information only - Contact HIU@health.qld.gov.au

This information does not replace clinical judgement
Falls practice points [27-30]

(1) Structured assessment of resident post-fall (please use in conjunction with Residential Care Facility Falls Assessment and Management Plan (review appendix 3))

AIM to identify:
1. Cause of fall
2. Injuries related to fall
3. Risk factors for further falls

Undertake:
1. **Check of vital signs** -
   A / B - Oxygen saturations - hypoxia
   - Respiratory rate
   C - Pulse rate - bradycardia or tachycardia
   - Blood pressure - hypotension or hypertension; if no injuries precluding, check for postural drop
   D - Conscious level - Glasgow Coma Score (GCS) or Alert-Verbal-Pain-Unresponsive (AVPU)
   - Blood glucose level
   E - Temperature - fever, hyperthermia or hypothermia

2. **History of fall** including:
   - Fall witnessed vs unwitnessed?
   - Resident recalls fall? Was resident unconscious?
   - Circumstances of fall: what was the resident doing? e.g. trip / slip, environmental hazard, change in posture, recent meal, urination, defecation, turning of head, cough
   - Warning symptoms before fall: pre syncope, chest pain, headache, palpitations, shortness of breath, vertigo
   - After fall: localised pain, headache, vomiting
   - Comorbidities: coagulopathy, cardiac history, Parkinson’s disease, visual impairment, osteoporosis, seizure disorder
   - Medications: on anticoagulants (eg. warfarin, dabigatran, apixaban, rivaroxaban, bivalirudin, fondaparinux) or anti-platelet (eg. aspirin, clopidogrel, prasugrel, dipyridamole) therapy, recently introduced medications, particularly those associated with postural drop (eg. antihypertensives, diuretics, autonomic blockers, antidepressants, hypnotics, anxiolytics, analgesics, psychotropics)

3. **Examination after fall** including:
   - Head - evidence of bruising, lacerations, facial bone tenderness, clinical evidence of base of skull fracture (bruising over mastoid or around both eyes), pupil equality, nystagmus, visual or hearing impairment
   - C-spine - tenderness
   - Chest - tenderness, bruising of ribs, murmurs, arrhythmia, congestive heart failure
   - Abdomen - tenderness, bruising (don’t forget to examine flanks), tenderness of pelvic bones, organomegaly
   - Thoracolumbar spine - tenderness
   - Limbs - bony tenderness or deformity
   - Focal neurological deficits, muscle rigidity, tremor
   - Assess for delirium using Confusion Assessment Method (CAM) (review appendix 1)
   - If no spine tenderness or lower limb deformity - assess for postural drop in blood pressure, and assess ability to mobilise safely with usual gait

(2) General falls prevention strategies

1. Regular environmental audits to identify falls risks
2. Consider vitamin D and calcium supplementation and arrange dietitian review for residents with falls
3. Residential Medication Management Review to identify medications that may be contributing to falls risk
4. Consider use of hip protectors, ensure safe footwear, alarm mats where indicated
5. Consider physiotherapy review to ensure appropriate mobility aid is utilised and implement physical training for balance and strength optimisation

(3) Resources for residents with falls

- **HHS falls specific services**
- QH Residential post fall clinical pathway
Fever or suspected infection

**Resident with fever / suspected infection (review practice point 1)**

1. **Check vital signs** (review #Recognition of the deteriorating resident)
2. **If not immediately life-threatening review #Checklist for contact and ring GP**

**STABLE VITALS**

Clinical review by GP - source identified?

**YES**

**UNSTABLE VITALS**

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

**SOURCE IDENTIFIED?**

- 1. Where consistent with resident's goals of care, arrange **blood tests** including: Full blood count, Urea, Electrolytes, Liver Function Tests, Blood cultures
- 2. **Urine sent for midls if:**
  - **ACUTE ONSET OF DYSURIA** (burning or stinging when passing urine)
  - OR the resident has **TWO or more criteria for a UTI**, at least one of which is a major criterion, note: if resident has an indwelling catheter or suprapubic catheter, only one criterion (major or minor) is required:
    a) **Major criteria:**
      - **FEVER** (review practice point 1)
      - **ALTERED MENTAL STATE** without another cause
    b) **Minor criteria:**
      - New or worsening **URGENCY** or **FREQUENCY**
      - **SUPRAPUBIC** or **FLANK PAIN** or tenderness
      - Gross **HAEMATURIA** (blood stained urine)
      - New or worsening urinary **INCONTINENCE**
      - **RIGORS** (uncontrollable shivering or shaking)
- 3. Where respiratory viral infection suspected, take nose and throat swabs for influenza and respiratory virus PCR
- 4. Where diarrhoea present, send stool sample for viral and bacterial PCR

**SOURCE IDENTIFIED?**

**SOURCE NOT IDENTIFIED**

Refer to **HHS RaSS** at GP discretion

Refer to relevant pathway:
- **#Urinary tract infection**
- **#Pneumonia**
- **#Cellulitis**
- **#Gastroenteritis**
- **#Influenza-like illness**

This information does not replace clinical judgement
Fever or suspected infection practice points [5, 31, 32]

(1) When to suspect infection in residents of aged care facilities

Suspect infection in residents with:

1. **Decline in functional status** as evidenced by any of:
   i. New or increasing **confusion**
   ii. New **incontinence**
   iii. **Deteriorating mobility**
2. **Reduced food intake**
3. **Change in behaviour**
4. **Fever** (where this is defined as a single oral temperature of > 38 degrees Celsius or an increase in temperature > 1.5 degrees Celsius over resident’s baseline temperature)

(2) Antibiotic selection

Prior to initiation of antibiotics, appropriate clinical specimens should be taken to assist in diagnosis and targeting of antibiotic therapy.

Antibiotic selection for infection should be guided by:

1. **Allergies** - note: in reference to hypersensitivities:
   - **Immediate hypersensitivity** refers to development of urticaria (hives), angioedema (facial / oral swelling), bronchospasm (wheeze) or anaphylaxis within 1 to 2 hours of exposure to a drug.
   - **Non-immediate hypersensitivity** refers to development of a macular, papular (raised) or morbilliform rash occurring several days after starting treatment.

2. **Prior sensitivities of organisms** in this resident if empiric therapy or by current sensitivities if directed therapy

3. **Comorbidities** with particular emphasis on:
   i. Immunosuppression eg. chronic steroid use / other immunosuppressive drugs
   ii. Renal or hepatic dysfunction - there may need to be dose adjustment
   iii. Nutritional status
   iv. Potential for drug interactions, particularly where there is polypharmacy - for example, specific risk exists in co-prescribing macrolide antibiotics (e.g. clarithromycin, erythromycin) and azole antifungals (e.g. Fluconazole, voriconazole)

4. **Antibiotic guidelines** for suspected infection source - use antibiotics suggested by relevant QH RACF pathway or Therapeutic guidelines: antibiotics version 16 or Review input from local referral hospital

5. **Residents ability to swallow or tolerate oral intake**

(3) Resources for residents with fever or suspected infection

- For advice on selection of antibiotics: contact your **HHS infectious diseases physicians**
Resident with suspected gastroenteritis

1. Immediately institute strict infection control procedures and isolate resident (review practice point 1)
2. Check vital signs (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

DEVELOPS RISK FEATURES or UNSTABLE VITALS

Is there evidence of risk feature/s:
- Severe abdominal pain
- Rigors (uncontrollable shivering / shaking)
- Reduced conscious state

YES

STABLE VITALS

Are there evidence of any referral features:
- Fevers
- Blood in stools
- Acute confusion
- Significant dehydration
- Significant comorbidity requiring stabilisation e.g. unstable diabetes

YES

NO

DEVELOPS REFERRAL FEATURES

Refer to HHS RaSS at GP discretion

1. Confirm gastroenteritis most likely diagnosis (review practice point 2)
2. Initiate appropriate investigations (review practice point 3)
3. Refer to facility and state guidelines on management of gastroenteritis and to gastro-info kit and review public health notification criteria
4. Monitor:
   - vital signs regularly
   - fluid balance
   - comorbidities - if known diabetic monitor blood glucose levels regularly
5. Encourage oral fluids as appropriate to individual resident - if clinical evidence of dehydration consider supplemental subcutaneous fluids (review #Subcutaneous fluids and dehydration)
6. Consider antiemetics
7. Monitor for development of risk or referral features

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Gastroenteritis practice points [33, 34]

(1) Infection control procedures in gastroenteritis (refer to state and facility guidelines and Gastro-info kit for more detailed information)

1. Reinforce hand hygiene with staff and visitors - ensure adequate supplies of liquid soap and alcohol-based hand rub
2. Isolate residents who are infected - if an appropriate single room is not available, implement room sharing (cohorting) of residents with the same infection
3. Allocate separate toilet for infected residents and utilise dedicated staff where possible
4. Monitor staff for symptoms - remain off work for at least 48 hours after last episode of symptoms
5. Restrict contact between affected and unaffected residents for at least 48 hours after last symptoms
6. Restrict visitors - warn them of risks
7. Increase personal protective measures - wear gloves, gowns/plastic aprons and masks when cleaning rooms of infected residents and masks before leaving the room
8. Clean resident environments frequently and thoroughly with a neutral detergent and hot water prior to disinfection with 0.1 per cent bleach solution

(2) Identification of gastroenteritis

Suspect potential gastroenteritis if resident has one or more of the following:
1. Diarrhoea
2. Increase of 3 or more bowel motions over an individual's baseline
3. 2 or more episodes of vomiting
4. Nausea and abdominal pain or tenderness
5. Consider diagnosis in those with functional decline

Consider alternate causes including:
1. Subacute bowel obstruction
2. Faecal impaction with overflow diarrhoea
3. Faecal incontinence
4. Diarrhoea secondary to medication
5. Acute abdomen - suspect if severe abdominal pain or abdominal guarding or rigidity

Signs of dehydration include:
1. Reduced urine output
2. Heart rate above 110 beats per minute
3. Dry mucous membranes (mouth and tongue)
4. Reduced systolic (top) blood pressure

(3) Investigations in gastroenteritis (consult public health for local guidelines)

1. In all residents test for bacterial AND viral PCR studies
2. In immunocompromised or those with recent hospitalisation or antibiotics add test for Clostridium difficile. Also add test for Clostridium difficile in those residents with suspected sepsis OR with negative bacterial and viral PCR studies and ongoing diarrhoea
3. If chronic symptoms (more than 7 days) add examination for Giardia and Cryptosporidium

(4) Resources for residents with gastroenteritis

- Local Public Health Unit contact details: https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units

This information does not replace clinical judgement
High blood pressure (BP)

Resident with systolic (top) blood pressure (BP) > 180 mmHg OR diastolic (bottom) BP > 110 mmHg

1. Check vital signs (review #Recognition of the deteriorating resident) and compare current BP to resident's usual BP
2. If not immediately life-threatening review #Checklist for contact and ring GP

STABLE VITALS

Does the resident have any warning symptoms:
- Severe headache
- New neurological symptoms or signs / new weakness
- New onset confusion
- Acute shortness of breath
- Chest pain

YES

GP and RACF manage resident; regular BP measurement to determine need for antihypertensive adjustment or if on palliative pathway cease measurement of blood pressure

UNSTABLE VITALS

GP manages or refer to HHS RaSS at GP discretion

UNSTABLE VITALS OR DEVELOPS WARNING SYMPTOMS

1. Allow resident to rest quietly
2. Ensure normal pain relief and blood pressure medications have been given
3. Undertake a pain assessment appropriate to cognition - provide analgesia if resident has pain and assess for cause of pain
4. Record blood pressure hourly for 4 hours and monitor for above warning symptoms

IMPROVES

DOES NOT IMPROVE

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High blood pressure (BP) practice points [35-39]

(1) Residents with no symptoms and a high blood pressure

** The American College of Emergency Physicians policy for asymptomatic patients with high blood pressure states

1. In patients with no symptoms and a markedly elevated blood pressure routine Emergency Department medical intervention is *not* required
2. In patients with no symptoms and a markedly elevated blood pressure routine Emergency Department screening for acute target organ injury is *not* required

** There is evidence that CHRONIC control of blood pressure in the elderly reduces LONG-TERM risk of stroke and heart attack but decision to treat and treatment goals need to be individualised and include assessment of overall goals and risk assessment for falls.

A systematic review of observational studies identified that hypertension is common in residents of aged care facilities and is commonly treated with antihypertensives; however, there was observed increasing polypharmacy, with associated risk of adverse events, without demonstrable benefit in terms of blood pressure control

(2) Hypertensive emergencies

** There is evidence EMERGENCY DEPARTMENT PRESENTATION is indicated, if long term goals of care are consistent with this, for hypertensive emergencies where high blood pressure is associated with any of:

1. Severe headache
2. New neurological symptoms or signs / new onset confusion
3. New weakness
4. Acute shortness of breath
5. Chest pain

(3) Resources for residents with hypertension

- **HHS specific general medicine or hypertension units**
Resident with Blood Glucose Level (BGL) of less than 4mmol/L

Is the resident conscious and co-operative?

YES

1. Give one serve of fast acting carbohydrate (review practice point 1)
2. Check vital signs (review #Recognition of the deteriorating resident)

UNSTABLE VITALS

NO

1. Lie on side in recovery position
2. Administer 1mg IMI glucagon if available
3. Refer to #Management of residents with unstable vital signs

1. Give one serve of slow acting carbohydrate (review practice point 2)
2. Recheck BGL in 1 hour and then if > 4, hourly for 4 hours, then 4 hourly for 24 hours
3. Review #Check-list for contact and ring GP

GP and RACF manage resident (review practice point 3), refer to HHS RaSS at GP discretion if ongoing concerns

Repeat BGL in 15 minutes: is BGL above 4?

BGL > 4

STABLE VITALS

BGL < 4

Contact HIU@health.qld.gov.au

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This information does not replace clinical judgement
### Hypoglycaemia practice points [40, 41]

<table>
<thead>
<tr>
<th>(1) Fast-acting carbohydrates</th>
<th>(2) Slow-acting carbohydrates</th>
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</thead>
<tbody>
<tr>
<td><strong>Normal diet</strong></td>
<td><strong>Normal diet</strong></td>
</tr>
<tr>
<td>100mL Lucozade</td>
<td>250mL milk</td>
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<tr>
<td>1 serve Poly Joule</td>
<td>1 tub (200g) yoghurt</td>
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<tr>
<td>150mL Lemonade or other soft</td>
<td>1 slice bread</td>
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<tr>
<td>drink (not diet)</td>
<td>2 sweet plain biscuits</td>
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<tr>
<td>3 teaspoons sugar dissolved</td>
<td>1 piece fruit</td>
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<tr>
<td>in 50mL water</td>
<td>next meal (if being served</td>
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<tr>
<td>7 small or 4 large glucose</td>
<td>within 30 minutes)</td>
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<tr>
<td>jellybeans</td>
<td></td>
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<tr>
<td>150mL orange juice</td>
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<tr>
<td>30mL cordial (not diet) mixed</td>
<td></td>
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<tr>
<td>with 150mL water</td>
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<tr>
<td><strong>Thickened diet</strong></td>
<td><strong>Thickened diet</strong></td>
</tr>
<tr>
<td>1 tube pre-prepared thickened</td>
<td>1 tub pureed fruit</td>
</tr>
<tr>
<td>cordial (not diet)</td>
<td>1 serve thickened milk</td>
</tr>
<tr>
<td>3 individual serves of jam (not</td>
<td>drink</td>
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<td>diet)</td>
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<tr>
<td><strong>PEG tube</strong></td>
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<tr>
<td>Via feeding tube:</td>
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<tr>
<td>100mL Lucozade</td>
<td>150mL enteral feed</td>
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<td>1 serve Poly Joule</td>
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<tr>
<td>150mL orange juice</td>
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<td>30mL cordial (not diet) mixed</td>
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<td>with 150mL water</td>
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### (3) Diabetes management after treating hypoglycaemia

GP to review diabetes management for causes of hypoglycaemia and correct avoidable causes.
If cause identified and corrected (e.g. missed, delayed or reduced intake), insulin dose adjustment is not required unless hypoglycaemia recurs; if reduced oral intake consider reducing mealtime insulin doses. If cause not identified or cannot be corrected, GP to consider:

i. hypoglycaemia that has occurred within 4 hours after mealtime insulin = reduce the dose of THAT mealtime insulin by 20 per cent the following day

ii. if hypoglycaemia has occurred outside of 4 hours after mealtime insulin = reduce basal insulin dose by 20 per cent

iii. if on a sulphonylurea obtain specialist advice as hypoglycaemia can be recurrent or prolonged

### (4) Resources for residents with hypoglycaemia

- **HHS specific endocrinology services**
- The McKellar Guidelines for managing older people with diabetes in residential and other care settings
Indwelling urinary catheter: preparation for insertion [42]

Resident assessed by GP as requiring IDC

GATHER REQUIRED EQUIPMENT:
1. Clean and prepare dressing trolley
2. Sterile equipment:
   • Catheter pack
   • Gloves
   • Indwelling catheter x 2 (review practice point 1 for selection of catheter)
   • Syringe of appropriate size - check IDC balloon size
   • Lignocaine jelly (or if allergy to lignocaine use KY jelly)
   • Urinary drainage bag (if required) - establish if hourly measures or free drainage required
   • Water ampoules (number required as per balloon size of IDC)
   • Aqueous chlorhexidine 0.1 per cent solution (if allergy to chlorhexidine use 0.9 per cent normal saline)
3. Clean equipment:
   • Blue-lined disposable underpad
   • Mask
   • Plastic apron
   • Protective eye-wear
   • An IDC anchoring device such as Flexi-trak

SPECIFIC PREPARATION OF THE RESIDENT:
1. Check resident identification, explain procedure to the resident
2. Position the resident comfortably (generally the optimal position is for the resident to lie supine on their back with the bed flattened, if this is able to be tolerated) AND ensure privacy

SPECIFIC PREPARATION OF EQUIPMENT AND OPERATOR:
1. Don mask and plastic apron
2. Use aseptic technique
3. Open outer wrapping of the catheter pack with an aseptic technique and place on dressing trolley
4. Perform a two minute hand wash and then unwrap catheter pack. With exposed forceps prepare equipment and add extra items
5. Open unsterile outer wrapping of catheter and place sterile wrapped catheter onto sterile field
6. Squeeze sterile water into bowl ready for balloon inflation
7. Pour aqueous chlorhexidine 0.1 per cent and normal saline 0.9 per cent over cotton wool swabs
8. Open sterile glove packet and open packet containing urinary drainage bag
9. Position patient comfortably - arrange an assistant if necessary
10. Wash hands for 30 seconds and dry
11. Don sterile gloves
12. Draw up sterile water into syringe and test catheter balloon - use only the amount of water labelled on the catheter (omit if in-out catheter)
13. Apply 2mL of lignocaine gel to the catheter tip
14. Proceed to #Indwelling urinary catheter: insertion pathway

This information does not replace clinical judgement
Indwelling urinary catheter: insertion [42]

IN ALL RESIDENTS:
1. Ensure procedure undertaken only if within scope of practice of operator
2. Review #Indwelling urinary catheter: preparation for insertion
3. Open fenestrated drape and place over resident’s genitals
4. Place cleaning tray just below resident’s genitals on fenestrated drape

IN FEMALE RESIDENTS:
1. Ensure urethral meatus sighted
2. Swab labia majora centre, far side, near side, centre and repeat for labia minora - use a fresh swab for each stroke
3. Gently insert the syringe tip of the lignocaine jelly into the meatus, and insert remaining lubricant and anaesthetic
4. Wait 3 minutes before insertion of catheter
5. Using forceps insert tip of catheter into urethral orifice until urine flows freely
6. Insert further 3 cm and then inflate the balloon using sterile water injected into the balloon inlet of the catheter
7. Gently withdraw catheter until balloon sitting in position at the bladder base
8. If accidentally inserted into vagina - leave in situ until another catheter is positioned in bladder

IN MALE RESIDENTS:
1. Using folded gauze squares, with non-dominant hand hold resident’s penis; retract foreskin if uncircumcised
2. Using dominant hand pick up forceps and clean penis with saline swabs from penis tip downwards, one stroke per swab; discard cleaning tray
3. Place catheter tray on fenestrated sheet; holding penis at right angles to the resident’s body gently insert lignocaine gel syringe tip into urethral meatus; inject lignocaine gel into urethra and insert remaining lubricant and anaesthetic
4. Wait 3 minutes before insertion of catheter
5. Using forceps pick up catheter, ensuring drainage end is in tray and gently insert tip of catheter into urethral orifice - when resistance is felt, lower penis and gently continue insertion until Y-junction of catheter reaches the urethral meatus; NB. if unable to advance catheter with gentle pressure, abort the procedure and contact HHS RaSS. If urine flow occurs prior to reaching the Y-junction of the catheter continue to insert catheter to the Y-junction THEN inflate the catheter balloon using sterile water injected into the balloon inlet of the catheter (observe the resident for any signs of discomfort - if this causes discomfort, stop inflating balloon and ensure that catheter continues to be inserted to Y-junction - if this is confirmed, gently inflate balloon - if this recurrently causes discomfort, abort the procedure and contact the HHS RaSS). NEVER INFLATE THE BALLOON UNTIL URINE FLOWS FREELY AND STOP IF RESIDENT EXPERIENCES PAIN
6. When balloon inflated, gently withdraw catheter until resistance felt (balloon at bladder base)

IN ALL RESIDENTS:
1. Connect catheter end to drainage bag; remove fenestrated drape
2. Secure catheter to resident’s leg (preferably using an appropriate anchoring device - assess and minimise tension with the patient lying, sitting and standing to minimise pressure injury risk)
3. Stabilise the drainage bag tubing with the clip provided to resident’s clothing
4. In uncircumcised males, reposition the foreskin to cover the glans penis
5. Return the resident to a comfortable position
6. Wait for the catheter to finish draining before leaving the bedside

This information does not replace clinical judgement
Indwelling urinary catheter: insertion practice points [42, 43]

(1) Catheter selection

**Lumen type:**
IDCs inserted in the RACF setting are generally **double lumen catheters** (a draining lumen for draining of urine and a balloon inflation lumen)
Triple lumen or three-way catheters (with an additional lumen for irrigating) are generally not appropriate for use in the RACF setting - if a resident has a triple lumen catheter in situ please contact **HHS RaSS**

**Size:**
Choose the smallest catheter size that will allow appropriate drainage
**IDCs >/= 18Fr size may increase risk of erosion of bladder neck and urethral mucosa with associated risk of stricture formation**
Selection of appropriate IDC size requires consideration of:
1. Gender: influenced also by body habitus but in general minimum IDC size in females with clear urine or mild debris is 12 Fr and in males with clear urine or mild debris is 16 Fr
2. Urine consistency: presence of moderate to heavy debris, mucous or clots may require females to have a 16 Fr and males to have a 18 Fr IDC

**Type of catheter material:**
If latex allergy: use 100 per cent silicone catheter
If no latex allergy: a hydrogel catheter or 100 per cent silicone catheter may be used
**There is no evidence to support routine use of antibiotic or silver impregnated catheters for long-term IDC placement**

(2) Frequency of IDC changes

***Indication** for ongoing IDC placement should be reviewed at regular intervals to ensure that the IDC is still required***

**Frequency of routine changes** of indwelling catheters is controversial and should be individualised; interval to IDC change should not exceed manufacturers’ recommendations for the catheter type inserted

Consider the following in determining frequency of changes:
1. Likely duration of catheterisation and type of catheter (review manufacturer recommendations of frequency of changes)
2. Catheter function
3. Encrustation
4. Frequency of blockages
5. Comfort
6. Local policy
***An IDC should ALWAYS be changed in those with a symptomatic urinary tract infection***

(3) Preventing Catheter-Associated Urinary Tract Infection (CAUTI)

Prevention of CAUTI is best achieved by:
1. Restricting IDC use to those with an ongoing clear indication and remove as soon as clinically safe to do so
2. Aseptic technique on IDC insertion with particular attention to hand hygiene, use of sterile gloves, cleaning of the genital region and a no touch technique of the catheter
3. Avoiding breaks in the closed drainage system
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Indwelling urinary catheter - troubleshooting a blocked indwelling catheter (IDC) or suprapubic catheter (SPC)

Resident with blocked indwelling catheter (IDC) or suprapubic catheter (SPC)

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP if vital signs unstable

Does resident meet criteria to check for a UTI? (review practice point 1)

YES

Refer to #Urinary tract infection pathway and change IDC or SPC - if assistance required refer to HHS RaSS

NO

Undertake systematic examination of resident and IDC to determine cause of obstruction and allow management:
1. IDC / SPC tubing examined for kinking or clothing restricting drainage → unkink or remove clothing
2. Drainage bag - ensure it is:
   • hanging below level of bladder
   • not more than ¾ full
   • straps of bag not occluding the non-return valve
3. Urine - evidence of:
   • hematuria / debris / mucous? → attempt to relieve blockage by “milking” catheter gently along its length

Potential occlusion of IDC eyelets by bladder mucosa - temporarily hold drainage bag above level of bladder to release suction

CATHETER REMAINS BLOCKED

Change IDC / SPC - if assistance required refer to HHS RaSS

Monitor catheter drainage, encourage fluids (if clinically appropriate) and record urine output

Refer to #Management of residents with unstable vital signs

CATHETER DRAINING

STABLE VITALS

UNSTABLE VITALS

CATHETER DRAINING

CATHETER REMAINS BLOCKED

Does resident meet criteria to check for a UTI? (review practice point 1)
Indwelling urinary catheter - troubleshooting a blocked IDC or SPC: practice points [5, 31, 32, 43-45]

(1) Criteria to check for a UTI

ONLY check for a UTI if the resident with a catheter has at least one of:

- **FEVER** (Temperature > 38 degrees Celsius or an increase of > 1.5 degrees Celsius above baseline temperature)
- **MENTAL STATUS CHANGE** without another cause
- **SUPRAPUBIC** or **FLANK PAIN** or tenderness
- **Gross HAEMATURIA** (blood stained urine)
- **RIGORS** (uncontrollable shivering or shaking)

**Urine odour and appearance are not predictive of UTI**

**Do not screen urine in asymptomatic residents** because residents in aged care facilities have high rates of abnormal dipsticks without UTI necessarily being present

**Multiple randomised trials have shown no benefit from treating asymptomatic bacteriuria**

(2) Recurrent IDC / SPC blockage

If recurrent IDC / SPC blockages:

1. Check IDC / SPC on changing for signs of encrustation - if present check for Proteus mirabilis infection AND cease ural or urinary alkalinisers
2. Encourage fluids if clinically appropriate
3. Consider:
   a. Increased catheter lumen size
   b. Change to 100 per cent silicone catheter
4. Send urine for m/c/s if clinical evidence of a UTI
5. Document history of blocking - may require increased frequency of IDC / SPC change
6. If resident constipated treat as per #Constipation

(3) IDC / SPC resources

- **HHS specific urology support services**
Influenza-like illness (ILI)

1. If renal function unknown commence at 75mg orally twice daily and then dose adjust for renal function as soon as renal function results available
2. Monitor other residents for additional cases
3. Refer to national guidelines on management of influenza-like illness and notify public health of outbreaks (3 or more cases of ILI in residents or staff of facility within 3 days) (review practice point 3)
4. Monitor resident for development of risk features: difficulty breathing OR mental status changes OR significant comorbidity requiring stabilisation

GP manages or refer to HHS RaSS at GP discretion

Does the resident meet diagnostic criteria for influenza? (review practice point 2)

YES

STABLE VITALS

Resident with suspected influenza-like illness (ILI)

1. Immediately institute strict infection control procedures (review practice point 1) and isolate resident
2. Check vital signs (review #Recognition of the deteriorating resident)
3. If not immediately life-threatening review #Checklist for contact AND ring GP

UNSTABLE VITALS

Review Advance Care Plan and refer to #Management of resident with unstable vital signs

DEVELOP RISK FEATURES

1. Collect nasopharyngeal swabs for influenza and respiratory virus PCR and if influenza confirmed, treat with oseltamivir for 5 days
   - 75mg orally twice daily;
   - if known Creatinine clearance 30mL to 60mL/minute reduce dose to 30mg twice daily; if known Creatinine clearance 10mL to 30mL/minute reduce dose to 30mg once daily;
   - note if oseltamivir suspension not available in a timely manner, consult local public health or infectious diseases physicians for advice on dosing
2. If renal function unknown commence at 75mg orally twice daily and then dose adjust for renal function as soon as renal function results available

NO RISK FEATURES

GP manages or refer to HHS RaSS at GP discretion

Does the resident meet diagnostic criteria for influenza? (review practice point 2)

YES

STABLE VITALS

Resident with suspected influenza-like illness (ILI)

1. Immediately institute strict infection control procedures (review practice point 1) and isolate resident
2. Check vital signs (review #Recognition of the deteriorating resident)
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UNSTABLE VITALS

Review Advance Care Plan and refer to #Management of resident with unstable vital signs

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2. If renal function unknown commence at 75mg orally twice daily and then dose adjust for renal function as soon as renal function results available

NO RISK FEATURES

GP manages or refer to HHS RaSS at GP discretion
Influenza-like illness (ILI) practice points [46]

(1) Infection control procedures in influenza-like illness (ILI) outbreaks
(refer to national guidelines for more detailed information - review link in practice point 3)

1. **Reinforce hand hygiene with staff and any visitors** - ensure adequate supplies of liquid soap, alcohol-based hand rub and paper-towels
2. **Respiratory hygiene and cough etiquette** - encourage residents to cover their nose and mouth when they cough or sneeze, use tissues and dispose of them into a rubbish bin, and perform hand hygiene
3. **Use personal protective equipment (PPE) when caring for infected residents** - single use surgical masks, gloves, single use aprons and eye protection, and change between residents
4. **Monitor staff for symptoms** - staff with respiratory ILI should be excluded from work while infectious. The infectious period for influenza is at least 5 days after onset of acute illness, or until they are symptom free for 24 hours, whichever is longer
5. **Isolate residents who are infected** - if an appropriate single room is not available, implement room sharing (cohorting) of residents with the same infection (laboratory confirmed or very clear case definition)
6. **Staff cohorting** - allocate dedicated staff (all of whom should be vaccinated for influenza) to the care of unwell residents isolated in rooms. These staff should not move between their section and nonisolated areas of the facility, or care for other residents
7. **Place contact and droplet precaution signs, liquid hand gel and PPE outside residents’ rooms (with a mechanism to allow for safe disposal of PPE items)** to remind staff and visitors about the requirement for strict infection control procedures - ensure visitors are shown how to use PPE appropriately
8. **Suspend group social activities in affected areas of the facility during an outbreak**
9. **Visitor restrictions during outbreaks** - non-essential visits should be discouraged. Visitors should visit only one resident (with direct entry and exit from the resident’s room and no other movements within the facility), practice good hand hygiene and use PPE as appropriate. Visitors with respiratory symptoms are not to visit while unwell
10. **Clean resident environments frequently** with a neutral detergent followed by a disinfection solution (TGA-registered hospital grade disinfectant or 1000 ppm sodium hypochlorite)

(2) Identification of influenza-like illness (ILI)

**SUSPECT ILI IF THE RESIDENT HAS:**

1. Sudden onset of symptoms (in the elderly these may be atypical and include anorexia, mental status changes or worsening of underlying chronic obstructive lung disease or cardiac failure)
   AND
2. At least one respiratory symptom (new or worsened cough OR sore throat OR shortness of breath)
   AND
3. At least one systemic symptom (fever OR malaise OR headache OR myalgia)

(3) Influenza resources

New or worsened confusion

Resident with new confusion or altered mental state

Is there an immediate risk to staff or to resident/s safety from violent behaviour?

- **YES**
  - Call QAS on 000 and then refer to #Behavioural emergencies pathway

- **NO**
  - 1. Check vital signs (review #Recognition of the deteriorating resident)
  - 2. If not immediately life-threatening review #Checklist for contact and ring GP
  - 3. Initiate supportive care (review practice point 1)

Refrain to #Management of residents with unstable vital signs

1. **STABLE VITALS**
   - Undertake systematic assessment including blood tests for cause of delirium (review practice point 3)
   - CAM POSITIVE
     - Consider alternate causes (review practice point 2) - may still represent sub-clinical delirium
   - Monitor vital signs including conscious level and neurological observations every:
     i. 15 minutes for 1 hour then
     ii. 30 minutes for 2 hours then
     iii. 1 hour for 8 hours then
     iv. 2 hours for 6 hours then
     v. 4 hours for 8 hours then
     vi. 6 hours for 24 hours OR as per medical order

2. **UNSTABLE VITALS**
   - Refer to #Recognition of the deteriorating resident
   - CAM NEGATIVE

3. **UNSTABLE VITALS**
   - Refer to #Management of residents with unstable vital signs

**ON GOING CONCERN, VITAL SIGNS STABLE**

- Refer to HHS RaSS at GP discretion

**CAUSE IDENTIFIED AND TREATABLE**

- GP and RACF manage cause of delirium - refer to relevant clinical pathway

**CAUSE NOT IDENTIFIED OR NOT WITHIN SCOPE OF GP / RACF TO TREAT**

This information does not replace clinical judgement
### New or worsened confusion practice points [47-51]

#### (1) Supportive care

1. **Orientation** prompts
2. **Family / volunteer** involvement
3. Adequate **nutrition and hydration**
4. Regular **mobilisation** as tolerated
5. Support of a normal **sleep-wake cycle**
6. Ensure availability of **hearing aids / glasses** as indicated
7. Provide **explanation and reassurance** to resident to counteract fear
8. Provision of **meaningful activity**

#### (2) Causes for acute confusion

<table>
<thead>
<tr>
<th>Cardiac</th>
<th>Myocardial infarction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>Change in environment or staffing, physical restraint</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Faecal impaction</td>
</tr>
<tr>
<td>Infections</td>
<td>Urinary tract infection, pneumonia, sepsis</td>
</tr>
<tr>
<td>Medications</td>
<td>Sedatives, antihistamines, alcohol, anticholinergics, levodopa, dopamine agonists, alcohol or benzodiazepine withdrawal</td>
</tr>
<tr>
<td>Metabolic</td>
<td>Hypoxia, hypoglycaemia, hyperglycaemia, hyponatremia, hypo- or hyper-calcemia, uremic encephalopathy, vitamin B1 or B12 deficiency, hyper- or hypothyroidism, adrenal / pituitary insufficiency</td>
</tr>
<tr>
<td>Neurologic</td>
<td>Encephalitis, meningitis, seizures; If there are focal neurological findings: stroke, subdural haemorrhage</td>
</tr>
</tbody>
</table>

#### (3) Systematic assessment for cause of acute confusion

Look for and address potentially reversible causes:

1. **History:** recent medication changes? dehydration (fluid intake, hot weather, diuretic use)? recent falls history? focal symptoms of infection or pain? bowel function? alcohol history? comorbidities? environmental changes?
2. **Examination:**
   - **Vital signs** - look for tachy- or brady-cardia, hypoxia, hypotension, fever or hypothermia, assess conscious state: AVPU (Alert, responds to Voice, responds to Pain or Unresponsive); postural drop in blood pressure (perform lying and standing blood pressures).
   - **Neurological examination** for signs of new stroke
   - Assess for (modify assessment based on individual symptoms and comorbidities):
     - **Dehydration:** dry mucous membranes
     - **Pain:** use cognition appropriate pain assessment tool eg. PAINAD (review [appendix 1](#))
     - **Urinary retention:** percuss for bladder
     - **Faecal impaction:** palpate abdomen and if required, perform rectal examination
     - **Focal chest findings** on auscultation
     - **Pressure injuries / other sources of infection**
3. **Investigations:** individualise approach based on resident’s wishes if has capacity / Advance Care Plan / Advance Health Directive / input of substitute health decision makers. At a minimum check:
   - **Blood glucose**
   - Full blood count, UEC, calcium, LFT, thyroid tests
   - Blood cultures if fevers, hypothermia or rigors
   - Send mid stream or catheter acquired urine for M/C/S where UTI criteria met (review [#Urinary tract infection](#))

#### (4) Acute confusion resources

Pain

1. **Assess pain using a tool appropriate to cognition** (review practice point 1)
2. **Check vital signs** (review Recognition of the deteriorating resident)
3. **If not immediately life-threatening** review Checklist for contact and ring GP

**Resident with uncontrolled pain**

**Structured assessment by GP and RACF nursing staff to determine cause of pain**

Does resident have ANY of:
1. Severe pain (= Numeric Pain Score /PAINAD score of greater than or equal to 7 / Abbey Pain Scale score of greater than or equal to 14)
2. Pain due to a condition requiring hospital based management
3. No cause identified and further hospital based investigations indicated

Is cause of pain identified?

**YES**

Classify type of pain:
1. Nociceptive pain (review practice point 2)
2. Neuropathic pain (review practice point 3)
3. Pain due to psychological / psychiatric factors (review practice point 4)

Establish pain management plan that encompasses a multi-disciplinary approach with:
1. Pharmacologic management based on type of pain - refer to Australian Medicines Handbook Aged Care Companion or Therapeutic Guidelines: analgesia for guidance on pharmacological management of pain
2. Non-pharmacological therapies (review practice point 5)
3. Assessment for response to pain management plan
4. For visceral pain further investigation for underlying cause of pain may facilitate optimal analgesic management

**NO**

**Treat underlying cause of pain**

**UNSTABLE VITALS**

Refer to #Management of resident with unstable vital signs

**STABLE VITALS**

Refer to HHS RaSS at GP discretion

**NO RESPONSE AND ACUTE PAIN**

Consider referral to HHS chronic pain service where available or if palliative goals of care to HHS palliative care service

**NO RESPONSE AND CHRONIC PAIN**

**Contact HIU@health.qld.gov.au**
Pain practice points [52-54]

(1) Pain tools appropriate to cognition

Pain assessment should be undertaken by a verbal pain report by resident where feasible. Initial assessment should be via a multidimensional pain tool (eg. Resident's Verbal Brief Pain Inventory); once a comprehensive pain assessment is completed, a unidimensional pain assessment scale can be used for ongoing evaluation of pain and response to management. If cognitively intact, use Numeric Rating Scale; if cognitively impaired, use Abbey Pain Scale or PAINAD (review appendix 1)

(2) Nociceptive pain

<table>
<thead>
<tr>
<th>Type of nociceptive pain</th>
<th>Location</th>
<th>Description</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superficial somatic</td>
<td>Skin and mucosa</td>
<td>Burning / stinging / sharp pain; well localised</td>
<td>Paracetamol, Opioids, Non-pharmacological interventions – cognitive behavioural therapy (CBT), heat, topical preparations</td>
</tr>
<tr>
<td>Deep somatic</td>
<td>Muscles, joints and bones</td>
<td>Aching / gnawing; well localised</td>
<td>Paracetamol, Opioids, Non-pharmacological interventions – warmth, exercise (if medically cleared)</td>
</tr>
<tr>
<td>Visceral</td>
<td>Abdominal and thoracic organs</td>
<td>Deep cramping / squeezing pain; diffuse and not usually well localised; may be referred to cutaneous sites</td>
<td>Optimal analgesic approach influenced by underlying cause; GP to consider investigations to determine underlying cause – this will guide analgesic approach</td>
</tr>
</tbody>
</table>

(3) Neuropathic pain

Definition: pain from damage to nervous system.
Features: pain is often burning / shooting / tingling / electric shock and may be referred to area of skin that the nerve would normally supply, less responsive to common analgesics
Management: 1. Less responsive to conventional analgesics 2. Adjuvant drugs eg. antidepressants / anticonvulsants / topical agents

(4) Pain due to psychological or psychiatric factors

Definition: Somatic complaints may be a presentation of depression (although severe pain may also cause depression) - screen for depression
Management: If depression present - ensure organic screen undertaken to exclude physical causes of pain and / or depression then consider antidepressant therapy and CBT and involvement of HHS specific Older Persons Mental Health Service

(5) Non-pharmacological therapies

All pain management plans should encompass use of non-pharmacological therapies as appropriate. These may include:
1. Exercise
2. Physical therapies (heat packs / TENS machines)
3. CBT
4. Ensuring appropriate manual handling techniques
5. Complementary therapies: massage, aroma therapy, meditation, music therapy

(6) Pain management resources

- HHS community palliative care services
- HHS chronic pain services where available

This information does not replace clinical judgement
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a blocked PEG

PEG tube blocked

1. Check vital signs (review #Recognition of the deteriorating resident)
   - If not immediately life-threatening review #Checklist for contact and ring GP

   STABLE VITALS

   1. Ensure tube clamp is open
   2. Check tube for damage / kinks

   TUBE UNBLOCKED

   Refer to #Management of residents with unstable vital signs

   Refer to #Management of residents with unstable vital signs

   UNSTABLE VITALS

   1. Aspirate PEG tube with 20mL syringe connected directly to tube to remove as much liquid from within tube lumen proximal to blockage (review practice point 2) on details of connection of 20mL syringe to PEG tube
   2. Attempt irrigation of tube with lukewarm water in a 20mL syringe - gently but firmly push and pull plunger back and forth (do NOT use force as this may rupture the feeding tube)
   3. Repeat the irrigation attempts with clean warm water in a 20mL syringe and then reattempt flushing of the tube with warm water in a 20mL syringe
   4. If tube remains blocked instil lukewarm water into the tube, clamp tube, and let water soak for up to 20 minutes - attempt flushing thereafter
   5. DO NOT USE ACID or CARBONATED (fizzy) DRINKS / FLUIDS
   6. Successful irrigation of the tube may take 20 to 30 minutes, so patience is key

   TUBE REMAINS BLOCKED

   Refer to HHS RaSS at GP discretion
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a blocked PEG practice points [55-57]

(1) Causes and prevention of blocked PEG

1. Medicines not administered appropriately
   a. Review medications with pharmacist to determine compatibility of medications, best delivery mode and most appropriate timing of medications
   b. Use liquid or dispersible medicines where able
   c. Do not mix any medicine directly with enteral feeds - always stop continuous or cycled feeds and flush with water before giving medications

2. Tube not flushed properly
   a. Flush tube well with (preferably warm) water (recommend minimum 30mL) before and after feeds and each medication
   b. Flush tube on changing flask (at least every 4 to 6 hours) if on continuous feeds
   c. Flush tube at least once per day if not in use

3. Putting carbonated beverages through the tube
   a. Carbonated beverages can interact with feeds / medications and cause precipitation of proteins in feeds within tube, making the blockage worse and leading to more clogging at a later time

4. Putting in fluids that are too thick
   a. Thoroughly blend powdered formula prior to passing through tube
   b. A pump may be needed when using thick feeds

5. Continuous feeds with irregular PEG flushes
   a. If the resident has continuous feeds for longer than 4 hours per day, the PEG tube should be flushed once every 4 hours to avoid tube blockage; this would ideally occur via a side port to avoid the need for interruption of feeds

(2) Connecting a 20mL syringe for flushing PEG tubes

A 20mL syringe is ideal for unblocking a PEG tube; the option for connection utilised will depend on whether the gastrostomy tube is ENfit compatible and what equipment is available in the RACF;

Options include:
1. Use of a 20mL ENfit syringe if the gastrostomy tube is ENfit compatible or an ENfit adaptor is available
2. If the gastrostomy tube is not ENfit compatible:
   • attach a Foley adaptor to the gastrostomy tube and use a 20mL Luer Lock syringe OR
   • use a 20mL Luer Slip syringe via the medication port of the gastrostomy (if there is one) - this often requires an assistant to ensure that the other feed port does not pop open whilst attempts are made to unblock the tube

(3) PEG tube resources

- Gastrostomy tube care:
- Contact service that inserted PEG if possible:
  - Gastroenterology team of HHS referral hospital or
  - Interventional radiology team for RIGs (Radiologically Inserted Gastrostomy) or
  - HHS gastrostomy support services
- PEG support and education from private companies:
  - Abbott: Nurse Educator - 0409 397 621 (Sydney based); Halyard / Avanos (formerly Kimberly Clark):
    Telephone support and education resources - 0418 314 329; Nutricia: Nurse educator / PEG support including after hours support - 0407 046 272 / 0425 254 284; Nestle support - 1800 671 628

This information does not replace clinical judgement
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a leaking PEG

PEG tube leaking or irritation at PEG site

1. Check vital signs (review Recognition of the deteriorating resident)
2. Review Checklist for contact and ring GP

UNSTABLE VITALS

Refer to Management of residents with unstable vital signs

STABLE VITALS

Examine for evidence of cause of leakage and treat cause as appropriate:
1. Retention balloon deflated or completely ruptured. Perform balloon volume check. Reinflate balloon with water and recheck volume immediately - this will indicate if balloon is ruptured; if balloon is not ruptured, recheck balloon volume after 2 hours to determine if there is a slow leak. If balloon rupture or deflation is confirmed, a PEG tube change is indicated
2. Bolster too loose or too tight: should be set to allow the external flange to be lifted 2 to 5mm from the skin with gentle traction - if more tighten, if less loosen
3. Infection (review practice point 2) - send swab of site and treat
4. GP to consider commencing proton pump inhibitor if not already used (dispersible preferred)
5. Side torsion or excessive tension on tube causing ulceration and enlargement of tract (review practice point 3) - correct with appropriate dressing / device to stabilise tube
6. Examine infusion plug for cracks or breaks - if present, replace
7. Poor gastric emptying e.g. secondary to gastroparesis or constipation or bowel obstruction; gastric venting may provide symptomatic relief while cause is being investigated
8. Protect skin using barrier wipe e.g. Cavilon no-sting barrier wipe 3M™ 3rd daily; note: avoid use of hydrogen peroxide

Refer to HHS RaSS at GP discretion

ONGOING LEAKING WITH NO CAUSE IDENTIFIED OR IDENTIFIED CAUSE REQUIRES SPECIALIST INPUT

Is there evidence of:
1. Buried bumper syndrome (review practice point 1)
2. Splits or cracks of PEG tubing
3. Discolouration and irregular beading of the PEG tube

YES

NO

Refer to #Management of residents with unstable vital signs

Observe resident for next feeding; institute preventive care (review #PEG tube: troubleshooting a blocked PEG practice point 1)

Provided for information only - Contact HIU@health.qld.gov.au

This information does not replace clinical judgement
Percutaneous endoscopic gastrostomy (PEG) tube: trouble-shooting a leaking PEG practice points [58,59]

(1) Buried bumper syndrome

Caused by excessive tension between the external and internal bolsters, causing inflammation and ultimately breakdown of the tract and migration of the internal bolster through the gastric mucosa;

Suspect if:
1. Tube is fixed (unable to push tube in and out: gentle traction should allow the external flange to be lifted 2 to 5mm from the skin)
2. Abdominal pain and tenderness at site
3. Increased peristomal leakage
4. Breakdown of site
5. Inability to infuse water / feeds through tube
6. Bleeding at PEG site
7. Recurrent peristomal infections

(2) Infection of PEG site

- May be fungal or bacterial
- Do a swab of the PEG site if infection is suspected and send for m/c/s
- Suspect bacterial infection if PEG site surrounded by:
  1. Redness
  2. Tenderness
  3. Purulent discharge (pus)
- Treat with antibiotics (review #Cellulitis)
- For fungal infections - treat with topical antifungals

(3) Side torsion or excessive tension

Side torsion refers to excessive tension on PEG tubing resulting in lateral pressure on one side of the PEG tract, causing pressure injury and secondary enlargement of the tract; manage by use of appropriate stabilisation device

a. Excessive lateral tension on the PEG tubing (caused when caught under bedding, bedrail or the resident’s body puts excessive lateral pressure against the tract of the PEG tube) resulting in pressure injury and enlargement of PEG tract;
b. Shifting the tube to the opposite side reveals an acute ulceration with exudate on the side to which the torsion is applied

(4) PEG tube management resources

- General information:
- Contact service that inserted PEG if possible:
  - Gastroenterology team of HHS referral hospital or
  - Interventional radiology team for RIGs (Radiologically Inserted Gastrostomy)
  - HHS gastrostomy support services
- Membership of the local ostomy association may afford the resident free equipment and medical supplies for management of gastrostomy needs

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This information does not replace clinical judgement
Pneumonia

Resident with suspected pneumonia

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP
3. Is the resident approaching end of life (review #End of life management)?

UNSTABLE VITALS or approaching end of life

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

DEVELOPS RISK FEATURES

1. Initiate appropriate investigations and commence oral antibiotics (review practice points 2 and 3)
2. Undertake supportive care (review practice point 4)
3. Monitor for above risk features
4. Expect improvement within 48 hours

FAILS TO IMPROVE

Is there evidence of risk feature/s:
- Respiratory rate > 30/min
- Systolic (top) blood pressure < 90mmHg
- Oxygen saturation < 92 per cent (or if resident has chronic obstructive pulmonary disease (COPD) < 90 per cent)
- Altered mental state (different from usual)
- New or increased agitation

Resident has any one of:
- New or increased:
  - Cough
  - Sputum
- Abnormal findings on chest examination
  - Pleuritic chest pain
    (worse on taking a breath in)
- Fever (review practice point 1)

Resident has any of:
- Inability to tolerate oral/PEG intake
- Pulse > 100/minute
- Immunosuppressed
  (e.g. on steroids)

Refer to HHS RaSS at GP discretion

This information does not replace clinical judgement
## Pneumonia practice points [60-62]

### (1) Fever definition

Fever is defined as temperature **higher than 38 degrees Celsius OR** an **increase of more than 1.5 degrees Celsius above resident's baseline** temperature.

### (2) Antibiotics for residents with pneumonia

Treat with oral antibiotics for 7 days:

- **If uncomplicated and NO penicillin allergy and NO suspicion of aspiration use:** amoxycillin 1g orally every 8 hours.

- **If aspiration suspected and NO penicillin allergy use:** amoxycillin-clavulanate 875mg + 125mg orally every 12 hours.

- **If non-immediate penicillin allergy use:** cefuroxime 500mg orally every 12 hours.

- **If immediate penicillin allergy or clinical concern for atypical organism use:** doxycycline 100mg orally every 12 hours.

**NB:** management of residents within hospital rather than within the facility in the absence of risk features **does not** decrease mortality which remains at ~30 per cent.

### (3) Investigations for residents with pneumonia

Consider the following investigations:

1. CXR if diagnostic uncertainty
2. Sputum m/c/s
3. Urinary antigens for Pneumococcus and Legionella

### (4) Supportive care for residents with pneumonia

1. **Monitor fluid balance closely** and consider subcutaneous fluids if required - pneumonia with associated fever and tachypnoea can lead to significant insensible water loss.

2. **Review and treat risk factors for pneumonia**:
   - i. Assess swallow - change fluids to those appropriate to swallow
   - ii. Assess neurological function
   - iii. Attend to oral hygiene
   - iv. Control gastro-oesophageal reflux - elevate head of bed
   - v. Update immunisation as required for influenza and pneumococcus when recovered from acute episode

3. **Analgesics and antipyretics** for pain and fever

4. Review medications and consider withholding or adjusting dose, where appropriate, of sedative medications

### (5) Resources for residents with pneumonia

- For advice on selection of antibiotics contact the [HHS RaSS](mailto:HHS.RaSS@health.qld.gov.au) or the local infectious diseases team.

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This information does not replace clinical judgement.
Shortness of breath (SOB)

Resident with acute onset shortness of breath (SOB)

1. Sit resident upright in a comfortable position, reassure and assess severity - look for red flags in shortness of breath (review practice point 1)
2. Check vital signs (review #Recognition of the deteriorating resident)
3. Apply oxygen to maintain oxygen saturations at 92 to 96 per cent (if history of COPD aim for 88 to 92 per cent)
4. If not immediately life-threatening review #Checklist for contact and ring GP

UNSTABLE VITALS OR RED FLAGS PRESENT

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

STABLE VITALS AND RED FLAGS ABSENT

Does structured history and clinical assessment with GP identify cause? (review practice point 2)

CAUSE IDENTIFIED or specific management pathway exists

Refer to specific management pathway

CAUSE NOT IDENTIFIED or no specific management pathway exists

Refer to HHS RaSS at GP discretion

This information does not replace clinical judgement
### Shortness of breath (SOB) practice points [63]

#### (1) Red flags in residents with shortness of breath

1. New inability to speak or only able to speak in single words
2. New altered level of consciousness
3. Cyanosis (blue discolouration to tongue, skin, lips or digits)
4. Physical exhaustion or inability to maintain respiratory effort
5. Use of accessory muscles of breathing (breathing associated with contraction of the sternocleidomastoid or scalene muscles in the neck, contraction of abdominal muscles)
6. Retraction of supra-clavicular or suprasternal fossae or of lower ribs during inspiration
7. Inability to lie supine
8. Profound sweating
9. Agitation (new)
10. Pulse rate more than 130 or less than 40 beats per minute
11. Respiratory rate more than 30 or less than 6 breaths per minute

#### (2) Clinical history and examination findings in residents with shortness of breath (SOB)

<table>
<thead>
<tr>
<th>Cause</th>
<th>History</th>
<th>Examination / bedside investigations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper airway obstruction</td>
<td>Sudden onset during eating</td>
<td>Shredding noise on in-breath (stridor)</td>
</tr>
<tr>
<td></td>
<td>Swelling of lips / tongue / throat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Altered level of consciousness</td>
<td></td>
</tr>
<tr>
<td>Angina or myocardial infarct</td>
<td>Dull central chest pain +/- radiation of pain</td>
<td>Sweating</td>
</tr>
<tr>
<td></td>
<td>or heaviness to jaw or arms</td>
<td>Palor</td>
</tr>
<tr>
<td></td>
<td>Note ischemic chest pain may present</td>
<td>Bilateral basal inspiratory crackles</td>
</tr>
<tr>
<td></td>
<td>atypically in older persons</td>
<td></td>
</tr>
<tr>
<td>Congestive cardiac failure (CCF)</td>
<td>Orthopnoea (increased SOB on lying flat)</td>
<td>New irregular or very slow pulse</td>
</tr>
<tr>
<td></td>
<td>Paroxysmal nocturnal dyspnea (waking at night with SOB)</td>
<td>Jugular venous distension</td>
</tr>
<tr>
<td></td>
<td>Weight gain</td>
<td>Bilateral basal inspiratory crackles</td>
</tr>
<tr>
<td></td>
<td>Prior history of CCF</td>
<td>Ankle oedema or swelling</td>
</tr>
<tr>
<td>Exacerbation of COPD or asthma</td>
<td>Prior history of COPD or asthma Smoking history</td>
<td>Bilateral polyphonic wheeze</td>
</tr>
<tr>
<td></td>
<td>Smoking history</td>
<td>Beware the silent chest or residents sitting forwards in “tripod” position.</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>Pleuritic (worse on inspiration) chest pain</td>
<td>Elevated temperature</td>
</tr>
<tr>
<td></td>
<td>Fever</td>
<td>Focal consolidation or bronchial breath sounds</td>
</tr>
<tr>
<td></td>
<td>Cough with purulent sputum</td>
<td></td>
</tr>
<tr>
<td>Pulmonary Embolism (PE)</td>
<td>Past history of PE or DVT</td>
<td>Unilateral calf tenderness or swelling (may be absent)</td>
</tr>
<tr>
<td></td>
<td>Pleuritic (worse on inspiration) chest pain</td>
<td>Often have a clear chest</td>
</tr>
<tr>
<td></td>
<td>History of cancer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calf pain or swelling</td>
<td></td>
</tr>
<tr>
<td>Pneumothorax</td>
<td>Recent history of falls with rib pain</td>
<td>Reduced breath sounds on affected side</td>
</tr>
<tr>
<td></td>
<td>Recent medical procedure near chest</td>
<td></td>
</tr>
<tr>
<td></td>
<td>History of previous pneumothorax</td>
<td></td>
</tr>
<tr>
<td>Diabetic ketoacidosis</td>
<td>Frequent, high volume urination</td>
<td>High blood glucose level</td>
</tr>
<tr>
<td></td>
<td>Increased fluid intake</td>
<td>High urinary ketones</td>
</tr>
<tr>
<td></td>
<td>History of diabetes</td>
<td></td>
</tr>
<tr>
<td>Anemia</td>
<td>Past history of anemia</td>
<td>Pallor</td>
</tr>
<tr>
<td></td>
<td>Blood loss: most commonly in the stools</td>
<td>Low hemoglobin</td>
</tr>
</tbody>
</table>
Subcutaneous fluids and dehydration

Resident with dehydration

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP
3. With GP undertake a systematic assessment for cause and severity of dehydration

NOTE: there is no evidence to support use of subcutaneous fluids at end of life

Stable Vitals

Refer to #Management of residents with unstable vital signs

Unstable Vitals

Refer to #Recognition of the deteriorating resident

Risk Features Present

Check for risk features:
- Severe dehydration
- Pre-existing cardiac failure
- Pulmonary oedema
- Lymphoedema
- Terminal care where this is the sole indication
- Coagulation defects

No Risk Features

Subcutaneous fluids are appropriate AND resident has one of:
- Mild dehydration
- Poor oral intake
- Nausea and vomiting
- Diarrhoea
- Dysphagia?

Yes

Patient Stable and recommences oral intake?

Yes

1. Encourage oral fluids as appropriate to each individual resident
2. Cease subcutaneous fluids
3. Monitor fluid balance and blood sugar closely

No

Refer to HHS RaSS at GP discretion

No

1. GP orders appropriate fluid (usually 0.9 per cent saline)
2. Insert subcutaneous device after appropriate skin preparation to a non-oedematous position as shown in diagram opposite (review practice point 1 for site selection)
3. Secure with appropriate dressing
4. Prime IV giving set, attach to subcutaneous device and commence infusion (review practice point 2 for rate)
5. Monitor site and hydration
6. Change site regularly (review practice point 3)
Subcutaneous fluids and dehydration practice points [64-66]

(1) Choosing a site

CONSIDER:
1. Resident mobility
2. Comfort and access
3. Skin condition
4. Use of a safety device for administration of subcutaneous fluids (e.g. BD Saf-T-Intima)

AREAS WITH ADEQUATE SUBCUTANEOUS FAT:
1. Anterior abdomen
2. Anterior thigh
3. Upper outer arm

AREAS THAT SHOULD NOT BE USED:
1. Limbs with lymphoedema
2. Overlying bony prominences
3. Areas of skin previously exposed to radiotherapy
4. Near a joint
5. Near a surgical or chronic wound site
6. Sites of infection or inflammation

(2) Rate of administration

Should be individualised based on degree of dehydration and comorbidities
Generally up to 1mL/minute at each site, resulting in a rate of up to 60mL/hour
If using 2 sites up to 3L in a 24 hour period may be administered (with 1.5L being administered at each site)
** SITE SHOULD BE CHECKED EVERY 4 HOURS FOR BRUISING, REDDENING, OEDEMA, LEAKING, PAIN, POOLING OR UNRESOLVED BLANCHING

(3) Changing sites

** FOR MAXIMUM ABSORPTION RATE ROTATE SITE REGULARLY (AT A MINIMUM AFTER EVERY 2L OF FLUID)
** INDICATIONS FOR CHANGE OF INFUSION SITE INCLUDE:
1. Pain at administration site
2. Redness or inflammation of skin surrounding site
3. Dislodged needle
4. Localised oedema (swelling) / bleeding / bruising

(4) Appropriate fluids

Fluids identified in controlled trials to be safe to administer via subcutaneous routes include 0.9 per cent saline (normal saline), 0.45 per cent saline (half-normal saline) and 5 per cent dextrose (although the latter may be associated with hyponatremia)
** Necrosis (sloughing) of skin may occur if inappropriate fluids are used - inappropriate fluids include markedly hypertonic or hypotonic fluid or those containing high concentrations of potassium chloride

Provided for information only -  
Contact HIU@health.qld.gov.au
Tracheostomy tubes

**Ensure all residents with a tracheostomy have an accessible Advance Care Plan to guide management**

1. If resident with tracheostomy and breathing difficulties
   - Is resident breathing?
     - YES
     - Call QAS on 000
     
       **Call QAS on 000**
       
       Commence CPR if no pulse or signs of life unless otherwise stated in Advance Care Plan or Advance Health Directive.
     
     **TO VENTILATE RESIDENT:**
     
     If previous laryngectomy (suspect if no tube present in stoma) use the smallest face mask applied to neck stoma with bag-valve-mask ventilation.
     
     If no prior laryngectomy, trial ventilation by usual oral route.
   
   - NO
     
     Improving?
     
     NOT IMPROVED
     
     Not improving?
     
     IMPROVED
     
     **Support ventilation and await QAS arrival.**

2. If resident breathing
   - Can you pass a suction catheter?
     - YES
     - Deflate tracheostomy cuff if present
     - Reassess breathing and oxygenation: Look, listen and feel at mouth and tracheostomy
     
     **Tracheostomy tube is patent:**
     
     Perform tracheal suction and ventilate via tracheostomy if not breathing; continue ABCDE assessment and if symptoms not entirely resolved or if abnormal vital signs call QAS on 000 unless otherwise stated in Advance Care Plan or Advance Health Directive.
   
   - NO
     
     NOT IMPROVED
     
     Improving?
     
     NO
     
     Improving?
     
     YES
     
     Support ventilation and await QAS arrival.

3. Remove cap if present
4. Apply 100 per cent oxygen to BOTH face and tracheostomy stoma
5. Call for help - if significant respiratory distress or cyanosis: Call QAS on 000
6. Remove speaking valve if present and remove inner cannula to clean before reinserting

This information does not replace clinical judgement.
Tracheostomy tubes practice points [67, 68]

(1) Tracheostomy care

Ensure that staff looking after residents with tracheostomies have completed competencies on their management

Complications are reduced by ensuring:
1. Resident is encouraged to cough own secretions - if unable to clear own secretions, initiate suctioning with non-fenestrated inner cannula
2. Provide humidification with swedish nose or Airvo
3. Keep stoma clean and dry and provide regular pressure care
4. Regularly check and clean inner cannula at least every 4 hours
5. Do not allow secretions to pool around stoma

(2) Tracheostomy tube features

(3) Residents with a history of laryngectomy

** NOTE: Patients with a history of laryngectomy are NECK BREATHERS - this means they can ONLY breathe through the stoma in their neck. If they require bag-valve-mask ventilation (or breathing or oxygen support) use the smallest mask available via the neck stoma ONLY - provision of oxygen / ventilatory support via the mouth will not result in oxygenation

(4) Tracheostomy resources

- **HHS ENT Outpatient clinics**
- Some HHSs have ENT Clinical Nurse Consultants who provide education to RACF staff on tracheostomy management - please contact your HHS RaSS for further information
- Equipment support: private companies that provide tracheostomy equipment may provide equipment education of support (e.g. Fisher and Paykel) - please contact your local representative and enquire
Urinary tract infections (UTI)

Resident with suspected urinary tract infection (UTI)

1. Check vital signs (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP

**UNSTABLE VITALS**

Review Advance Care Plan and refer to #Management of residents with unstable vital signs

1. Commence oral antibiotics with choice influenced by flank tenderness, allergies and prior organism sensitivities (review practice point 2)
2. Analgesia as required
3. Note: Increased falls risk may occur due to urgency / frequency / delirium - increase supervision and modify environment to reduce risk of falls
4. Monitor for systemic symptoms or change in vital signs (QID vital signs for 72 hours)

**STABLE VITALS**

Does resident meet criteria to check for a UTI? (review practice point 1)

YES

1. Obtain urine sample for microscopy, culture and sensitivities
2. If indwelling catheter (IDC) or suprapubic catheter (SPC) in situ, change catheter

NO

Look for alternate cause of symptoms and do not send urine sample for culture. If no alternate cause of symptoms found, refer to HHS RaSS at GP discretion

Is there either ongoing vomiting or rigors (uncontrolled shivering / shaking)?

YES

Refer to HHS RaSS at GP discretion

NO

Is there development of vomiting or rigors or failure to respond to oral antibiotics by 72 hours OR development of unstable vital signs at any time?

YES

Refer to HHS RaSS at GP discretion

NO

GP and RACF to continue ongoing care and monitoring

Contact HIU@health.qld.gov.au

Provided for information only -  

This information does not replace clinical judgement
Urinary tract infections (UTI) practice points [5, 31, 32, 69]

(1) Criteria to check for a UTI

ONLY check for a UTI if the resident has either:

**ACUTE ONSET OF DYSURIA** (burning or stinging when passing urine)

OR the resident has **TWO or more criteria for a UTI** (at least one of which is a major criterion) or if the resident has an IDC or SPC at least one criteria of:

**Major criteria:**
- **FEVER** (where this is defined as a single oral temperature of > 38 degrees Celsius or an increase in temperature > 1.5 degrees Celsius over resident’s baseline temperature)
- **ALTERED MENTAL STATE** without another cause

**Minor criteria:**
- New or worsening **URGENCY** or **FREQUENCY**
- **SUPRAPUBIC** or **FLANK PAIN** or tenderness
- Gross **HAEMATURIA** (blood stained urine) without another cause
- New or worsening urinary **INCONTINENCE**
- **RIGORS** (uncontrollable shivering or shaking)

**Urine odour and appearance are not predictive of UTI**

**Do not screen urine in asymptomatic residents** because residents in aged care facilities have high rates of abnormal dipsticks without UTI necessarily being present

**Do not screen urine based on an isolated episode of behavioural change**

**Multiple randomised trials have shown no benefit by treating asymptomatic bacteriuria**

(2) Antibiotic selection in a UTI (review #Fever / suspected infection for principles)

**IF FLANK TENDERNESS ABSENT and above criteria met = CYSTITIS:**

Duration of antibiotics:
- Females = 5 days; Males = 7 days

For empirical therapy of uncomplicated cystitis use: **nitrofurantoin 100mg orally, 6 hourly**

(NB: Should be avoided in residents with renal impairment and an estimated GFR < 45mL /minute or in those using concurrent urinary alkalisising agents, which may reduce effectiveness of **nitrofurantoin**)

Where nitrofurantoin cannot be used, use **cefalexin 500mg orally every 12 hours**

**IF FLANK TENDERNESS PRESENT, above criteria met = PYELONEPHRITIS**

Duration of antibiotics:
- Females and males = 10 to 14 days
  - If NO penicillin allergy use: amoxicillin and clavulanate 875mg + 125mg orally every 12 hours
  - If penicillin hypersensitivity use: **ciprofloxacin 500mg orally, every 12 hours for 7 days**

(3) Prevention of UTI

Avoid condom catheters and review indication for IDC regularly; there is no indication for prophylactic antibiotics administered with IDC change

Topical vaginal oestrogen decreases incidence of UTI in post-menopausal women

(4) Resources for residents with UTI

**Wound management**

1. **Check vital signs** (review #Recognition of the deteriorating resident)
2. If not immediately life-threatening review #Checklist for contact and ring GP
3. **Are red flags present?**
   - Unstable vitals
   - Significant wound bleeding unable to be controlled with pressure
   - Acutely ischemic limb (pale, pulseless, painful)
   - Underlying suspected bony injury
   - Significant other injury

   **YES**
   - Review Advance Care Plan and refer to #Management of residents with unstable vital signs

   **NO**
   - Institute appropriate acute wound management principles:
     1. Control bleeding
     2. Assess pain and administer analgesia if required
     3. Irrigate with normal saline
     4. Assess wound edge apposition: for skin tears if skin flap remains viable gently replace tissue flap avoiding tension on flap; for lacerations use steristrips, wound adhesive or sutures to improve apposition, as indicated; steristrips and tapes should be avoided in management of skin tears as they may cause damage on removal
     5. For appropriate dressings, refer to appendix 4 skin tears resource or to Therapeutic Guidelines: ulcer and wound management
     6. Review resident’s tetanus immunisation status and administer booster +/- tetanus immunoglobulin as per Australian Immunisation Handbook

   **YES**
   - Institute appropriate wound management as determined by cause of wound (review appendix 3 for wound management resources)

   **NO**
   - Determine location and type of chronic wound (review practice point 2)

   **YES**
   - Is the cause of the wound clear?

   **NO**
   - Refer to HHS RaSS

---

This information does not replace clinical judgement
(1) Acute versus chronic wounds

**Acute wounds** here refer to wounds in which healing is anticipated to progress normally through an orderly and timely repair process with resolution of the wound within no more than 4 weeks.

**Chronic wounds** are wounds in which there is impaired healing and include diabetic foot ulcers, pressure ulcers, arterial and venous ulcers.

(2) Determining the type of chronic wound

Type of wound is determined on basis of history, examination and appropriate investigations. For any chronic wound where the resident has had exposure to pressure forces, establish if the wound is a pressure injury and ensure an appropriate pressure injury prevention plan is in place. Any wound that fails to respond to appropriate wound management should be considered for biopsy to exclude a neoplastic cause, particularly if wound present for > 3 months. **Wounds are considered HIGH RISK if there is any of:** exposed bone or bone is easily probed, tissue necrosis overlies bone, gangrene is present, persistent sinus tract, underlying open fracture, underlying internal fixation, bites, or if the wound persists or recurs. Wounds are also considered HIGH RISK if occurring in immunosuppressed or diabetic patients.

<table>
<thead>
<tr>
<th>TYPE OF WOUND</th>
<th>Arterial Ulcer</th>
<th>Venous Ulcer</th>
<th>Diabetic Ulcer (= Neuropathic Ulcer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY</td>
<td>History of smoking, intermittent claudication</td>
<td>History of any of: Thrombophlebitis, DVT, varicose veins, lower extremity injury, surgery to leg; aching and swelling worse at end of day and relieved with leg elevation</td>
<td>History of diabetes, numbness, paraesthesiae, burning or loss of sensation in feet</td>
</tr>
<tr>
<td>PAIN</td>
<td>Often very painful requiring strong analgesics; pain increases with exercise and leg elevation</td>
<td>Pain often dragging ache worse with mobilisation and relieved by leg elevation</td>
<td>Painless or burning pain</td>
</tr>
<tr>
<td>TYPICAL LOCATION</td>
<td>Distal lower limbs especially overlying bony prominences</td>
<td>Lower 1/3 of leg</td>
<td>Sites of pressure in foot e.g. metatarsal heads, heels and toes</td>
</tr>
<tr>
<td>ULCER APPEARANCE</td>
<td>Round or punched out ulcer with sharply demarcated border, base often pale or discoloured nonviable tissue</td>
<td>Shallow, irregular margins, often with fibrinous material at ulcer bed</td>
<td>Surrounding callus, variable depth</td>
</tr>
<tr>
<td>SURROUNDING SKIN</td>
<td>Cold. pale feet; loss of hair; shiny taut skin</td>
<td>Peripheral oedema; venous dermatitis (pigmented skin); +/- atrophy blanche or white scar formation</td>
<td>Frequently callused</td>
</tr>
<tr>
<td>VASCULAR STATUS</td>
<td>Capillary refill time &gt; 4-5 seconds; pulses weak or absent</td>
<td>Capillary refill time &lt; 3 seconds; pulses generally present</td>
<td>Capillary refill time &lt; 3 seconds if no associated arterial disease; potential for bounding pulses</td>
</tr>
<tr>
<td>ANKLE BRACHIAL INDEX (ABI)</td>
<td>ABI: 0.6 to 0.9 = peripheral arterial occlusive disease; &lt; 0.5 = critical arterial disease</td>
<td>Normal ABI 0.9 or higher</td>
<td>Normal ABI 0.9 if no associated arterial disease</td>
</tr>
</tbody>
</table>

Appendix 1: RACF resident assessment tools

The following RACF resident assessment tools are provided as a resource for use if required; RACF providers may have their own preferred assessment tools.

AVPU: Assessment tool for conscious state [74]

AVPU (an acronym for Alert, Voice, Pain, Unresponsive) is a simple assessment scale to assess the conscious level of residents.

\[\begin{align*}
A &= \text{the resident is fully awake} \\
V &= \text{the resident responds to verbal stimulation only} \\
P &= \text{the resident responds to painful stimulation only} \\
U &= \text{the resident is completely unresponsive}
\end{align*}\]
Cognition appropriate pain assessment tool: PAINAD [75]

PAINAD or Pain Assessment in Advanced Dementia Scale, is a pain assessment tool designed for assessment of pain in those with advanced cognitive impairment.

Instructions:
- Observe the resident for 5 minutes prior to scoring
- Score according to chart below
- If resident assessed to be in pain, repeat scoring after administration of analgesia to determine effectiveness of analgesia
- Scoring:
  - Total score ranges from 0 to 10 points
  - If PAINAD score:
    - 1 to 3 = mild pain
    - 4 to 6 = moderate pain
    - 7 to 10 = severe pain

<table>
<thead>
<tr>
<th>Behaviour (score when not talking)</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal breathing = quiet, effortless, smooth breathing</td>
<td>0</td>
</tr>
<tr>
<td>Occasional labored breathing (= episodic bursts of harsh, difficult respirations) or short periods of hyperventilation (short periods of rapid, deep breaths)</td>
<td>1</td>
</tr>
<tr>
<td>Noisy laboured breathing (= loud or gurgling or wheezing breathing that looks strenuous) or Long period of hyperventilation or Cheyne-Stokes respirations (rhythmic waxing and waning of breathing from very deep to shallow respirations with periods of apnoea or cessation of breathing)</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative speech</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>None = speech has neutral or pleasant quality</td>
<td>0</td>
</tr>
<tr>
<td>Occasional moan or groan or low-level speech with a negative or disapproving quality (= muttering, mumbling, whining, grumbling or swearing in a low volume with a complaining, sarcastic or caustic tone)</td>
<td>1</td>
</tr>
<tr>
<td>Repeated troubled calling out; loud moaning or groaning or crying</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facial expression</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smiling or inexpressive</td>
<td>0</td>
</tr>
<tr>
<td>Sad or frightened or frowning</td>
<td>1</td>
</tr>
<tr>
<td>Facial grimacing</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Body language</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relaxed</td>
<td>0</td>
</tr>
<tr>
<td>Tense or distressed or pacing or fidgeting</td>
<td>1</td>
</tr>
<tr>
<td>Rigid or fists clenched or knees pulled up or pulling or pushing away or striking out</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consolability</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>No need to console</td>
<td>0</td>
</tr>
<tr>
<td>Distracted or reassured by voice or touch</td>
<td>1</td>
</tr>
<tr>
<td>Unable to console, distract or reassure</td>
<td>2</td>
</tr>
</tbody>
</table>

The PAINAD was developed and tested by clinicians and researchers at the New England Geriatric Research Education and Clinical Center, a Department of Veterans Affairs center of excellence with divisions at EN Rogers Memorial Veterans Hospital, Bedford, MA, and VA Boston Health System.
Cognition appropriate pain assessment tool: ABBEY PAIN SCALE [76]

Abbey Pain Scale (Pain Assessment in Advanced Dementia Scale) is a pain assessment tool designed for assessment of pain in those who are unable to clearly articulate their needs.

Instructions:

- While observing the resident score behaviours 1 to 6 – the scale is best used while the resident is being moved (e.g. during pressure area care) rather than while static
- Score according to chart below
- If resident assessed to be in pain, repeat scoring after administration of analgesia to determine effectiveness of analgesia
- Scoring:
  - Total score ranges from 0 to 18 points
  - If Abbey Pain Score:
    - 0 to 2 = no pain
    - 3 to 7 = mild pain
    - 8 to 13 = moderate pain
    - 14+ = severe pain

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Points</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocalisation = whimpering, groaning, crying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facial expression = looking tense, frowning, grimacing, looking frightened</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in body language = fidgeting, rocking, guarding part of body, withdrawn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioural change = increased confusion, refusing to eat, alteration in usual patterns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physiological change = temperature, pulse or blood pressure outside normal limits, perspiring, flushing or palor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical changes = skin tears, pressure areas, arthritis, contractures, previous injuries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Delirium screening tool: Confusion Assessment Method (CAM) [77]

The Confusion Assessment Method (CAM) is a tool that facilitates screening for delirium. Instructions:
- Score according to chart below
- Scoring - delirium is suggested if:
  - All items in box 1 are answered YES and
  - At least one item in box 2 is answered YES

<table>
<thead>
<tr>
<th>Box 1:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Acute onset and fluctuating course</strong></td>
<td></td>
</tr>
<tr>
<td>a. Is there evidence of an acute change in mental status from the resident's baseline? OR</td>
<td>☐ Yes ☐ No</td>
</tr>
<tr>
<td>b. Did the abnormal behaviours fluctuate during the day (i.e. tend to come and go or increase and decrease in severity)?</td>
<td></td>
</tr>
<tr>
<td><strong>II. Inattention</strong></td>
<td></td>
</tr>
<tr>
<td>Did the patient have difficulty in focusing attention, for example, being easily distractible or having difficulty keeping track of what was being said?</td>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 2: Perform if both of above are answered yes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Disorganised thinking</strong></td>
<td></td>
</tr>
<tr>
<td>Was the resident's thinking disorganised or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?</td>
<td>☐ Yes ☐ No</td>
</tr>
<tr>
<td><strong>II. Altered level of consciousness</strong></td>
<td></td>
</tr>
<tr>
<td>Overall, how would you rate the patient's level of consciousness?</td>
<td>☐ Yes ☐ No</td>
</tr>
<tr>
<td>Alert</td>
<td></td>
</tr>
<tr>
<td>Vigilant</td>
<td></td>
</tr>
<tr>
<td>Lethargic (drowsy, easily aroused)</td>
<td></td>
</tr>
<tr>
<td>Stupor (difficult to rouse)</td>
<td></td>
</tr>
<tr>
<td>Coma (unrousable)</td>
<td></td>
</tr>
<tr>
<td>Score as yes if level of consciousness lower than alert</td>
<td></td>
</tr>
<tr>
<td>Score as no if alert</td>
<td></td>
</tr>
</tbody>
</table>

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Neuropsychiatric inventory [78, 79]

Answer the questions (next page) based on changes that have occurred since the resident first began to experience a change in behaviours

Circle “yes” only if the symptom has been present in the past month
Otherwise circle “no”

For each item marked “yes”:

A. Rate the severity of the symptom (how it affects the resident):

1 = mild (noticeable, but not a significant change)
2 = moderate (significant, but not a dramatic effect)
3 = severe (very marked or prominent, a dramatic change)

B. Rate the distress the caregiver / staff experiences due to that symptom:

0 = not distressing at all
1 = minimal (slightly distressing, not a problem to cope with)
2 = mild (not very distressing, not always easy to cope with)
3 = moderate (fairly distressing, not always easy to cope with)
4 = severe (very distressing, difficult to cope with)
5 = extreme or very severe (extremely distressing, unable to cope with)

SCORING:

Total NPI-Q severity score = sum of individual symptom scores (range 0-36)
Total NPI-Q distress score = sum of individual symptom scores (range 0-60)

Higher scores indicate more behavioural disturbance. However, there is no “cut-off” point for abnormal findings, as each symptom that is present may be significant in its own right.

<table>
<thead>
<tr>
<th>Symptom: Has this symptom occurred in the last month?</th>
<th>Severity</th>
<th>Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delusions: Does the resident believe that others are stealing from them / planning to harm them in some way?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hallucinations: Does the resident act as if they hear voices or talks to people who are not there?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agitation or aggression: Is the resident stubborn and resistive to help from others?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression or dysphoria: Does the resident act as if they are sad or in low spirits or cries?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety: Does the resident become upset when separated from you? Do they have any other signs of nervousness such as shortness of breath, sighing, being unable to relax, or feeling excessively tense?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elation/Euphoria: Does the resident appear to feel too good or act excessively happy?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apathy/Indifference: Does the resident seem less interested in their usual activities or in the activities and plans of others?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disinhibition: Does the resident seem to act impulsively?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
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<tr>
<td>Irritability/Lability: Is the resident impatient and cranky? Do they have difficulty coping with delays or waiting for planned activities?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
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</tr>
<tr>
<td>Motor Disturbance: Does the resident engage in repetitive activities such as pacing around the facility, handling buttons, wrapping string or doing other things repeatedly?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nighttime Behaviours: Does the resident awaken you during the night, rise too early in the morning, or take excessive naps during the day?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appetite/Eating: Has the resident lost or gained weight, or had a change in the type of food liked?</td>
<td>1 2 3</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Brisbane South Palliative Care Collaborative (BSPCC) RAC EoLCP™ was developed as part of a project funded by the Department of Health and Ageing.

This End of Life Care Pathway (EoLCP) document is a consensus based, best practice guide to providing care for residents in Residential Aged Care Facilities (RACFs) during the last days of their lives. The entire document forms part of the resident’s medical record.

To commence the pathway, authorisation should be obtained from the resident’s General Practitioner (GP). If the GP cannot be contacted, interim authorisation can be obtained from one of the following: Palliative Care Medical Officer (PCMO), Palliative Care Nurse Specialist (PCNS) or Senior RACF Registered Nurse (RN). Authorisation can be verbal but needs to be confirmed in writing by completing Section 1, within 48 hours.

Instructions for Completing the Pathway

Section 1: Commencing a Resident on the Pathway
Medical Officer to be consulted and documentation can be completed by any of the following:
GP, PCMO, PCNS, RN

Section 2: Medical Interventions and Advance Care Planning
Medical Officer to be consulted and documentation can be completed by any of the following:
GP, PCMO, PCNS, RN

Section 3: Care Staff Interventions
Part A - Care Management
To be completed by RN or Enrolled Nurse (EN)

Part B - Comfort Care Chart
To be completed by attending Nursing and Care Staff
A new chart is to be commenced daily

Part C - Further Care Action Sheet
Nursing and Care Staff are to document any further actions taken to improve comfort care

Section 4: Multidisciplinary Communication Sheet
All members of the multidisciplinary team can document here

Section 5: After Death Care
To be completed upon death of a resident by the attending nurse

Note: Dependent upon individual RACF practices, it may be preferred to use existing facility documentation tools to record Sections 4 and 5.
Section 1: Commencing a Resident on the Pathway

The signs and symptoms listed below are considered to indicate that the terminal phase of life is imminent. (‘Guidelines for a Palliative Approach in Residential Aged Care’ Australian Government Department of Health and Ageing [2006])

It is appropriate to **start the pathway if three or more of these signs and symptoms** are applicable to the resident. The final decision to commence the pathway is a clinical one, supported by the views of the GP, multidisciplinary team and, if possible, the resident and/or their representative*.

Please note, in some cases residents may be commenced on the pathway and then taken off the pathway if their condition improves.

<table>
<thead>
<tr>
<th>Signs and symptoms associated with the terminal phase</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Experiencing rapid day to day deterioration that is not reversible</td>
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<tr>
<td>Requiring more frequent interventions</td>
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<td></td>
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<tr>
<td>Becoming semi-conscious, with lapses into unconsciousness</td>
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<tr>
<td>Increasing loss of ability to swallow</td>
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<tr>
<td>Refusing or unable to take food, fluids or oral medications</td>
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<tr>
<td>Irreversible weight loss</td>
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<tr>
<td>An acute event has occurred, requiring revision of treatment goals</td>
<td></td>
<td></td>
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<tr>
<td>Profound weakness</td>
<td></td>
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<tr>
<td>Changes in breathing patterns</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Agreement to commence on pathway</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Verbal (✓)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print name</td>
<td></td>
<td></td>
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<tr>
<td>Title</td>
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<tr>
<td>Signature</td>
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<tr>
<td>Date</td>
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</tbody>
</table>

*substitute decision maker

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For illustrative purposes only - Provided for information only - Contact HIU@health.qld.gov.au
Section 2: Medical Interventions and Advance Care Planning

As a minimum, a reassessment of the commencement criteria should occur every three days.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential medications, via appropriate route, charted</td>
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<tr>
<td>PRN medications ordered as per guidelines</td>
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<tr>
<td>Nonessential medications discontinued</td>
<td></td>
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<tr>
<td>Subcutaneous infusion(s) commenced if appropriate</td>
<td></td>
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<tr>
<td>Inappropriate interventions and observations discontinued</td>
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<tr>
<td>(e.g. BSL, blood pressure monitoring)</td>
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</table>

Advance Care Planning

<table>
<thead>
<tr>
<th>Advance Care Planning</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Current condition and commencement of EoLCP discussed with resident / resident's representative</td>
<td></td>
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<tr>
<td>Issues surrounding intravenous / parenteral and PEG feeding have been discussed with the resident / resident's representative*</td>
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<tr>
<td>Future care plan discussed with resident / resident's representative* (e.g. transfer to hospital, use of antibiotics)</td>
<td></td>
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<tr>
<td>'Acute Resuscitation Plan' / 'Not for Resuscitation' order discussed and agreed to by resident / resident's representative*</td>
<td></td>
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</tbody>
</table>

If recording a 'no' or 'pending' response, please document reasons for this on the multidisciplinary communication sheet to facilitate follow up action.

Verbal (✓)

<table>
<thead>
<tr>
<th>Verbal (✓)</th>
<th>Print name</th>
<th>Title</th>
<th>Signature</th>
<th>Date</th>
<th>Time</th>
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</tbody>
</table>

*substitute decision maker
# Section 3: Part A - Care Management

The following information may already be documented in the resident's chart. Please check that the information in the chart is current and document any changes as necessary.

<table>
<thead>
<tr>
<th>Spiritual / Religious / Cultural Needs</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have the spiritual / religious / cultural needs of the resident been addressed?</td>
<td></td>
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</tr>
<tr>
<td>Has the resident / resident’s representative* expressed a preferred Funeral Director?</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication with resident / resident’s representative*</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have contact details of resident’s representative* been updated?</td>
<td></td>
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<tr>
<td>Have attempts been made to inform the resident’s representative* that the resident is dying?</td>
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<tr>
<td>Have issues around impending death been discussed with resident's representative**?</td>
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<tr>
<td>Has resident’s representative* been approached regarding grief and loss issues?</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Comfort Planning</th>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need for special mattress assessed?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Comfort Care Chart commenced?</td>
<td></td>
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</tbody>
</table>

| Other (please state) |     |    |         |     |

If recording a ‘no’ or ‘pending’ response, please document reasons for this on the multidisciplinary communication sheet to facilitate follow up action.

<table>
<thead>
<tr>
<th>Print name</th>
<th>Title</th>
<th>Signature</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

*substitute decision maker
### Section 3: Part B - Comfort Care Chart

- **Record an entry against each item, as appropriate**
- **Minimum documentation is 4 hourly, though**
- **Psychosocial issues may only need assessment twice daily**
- **Further Actions (F/A) taken, other than routine care (R/C) to be recorded on the ‘Further Care Action Sheet’ (Sec 3 Part C)**
- **A new chart is to be commenced each day**

#### Score each box:
- **A** = assessed and no action required
- **F/A** = further action required
- **R/C** = routine care
- **N/A** = not applicable

#### Date:
- 0200 0400 0600 0800 1000 1200 1400 1600 1800 2000 2200 2400

#### Symptom Management

- **Agitation**
- **Nausea / vomiting**
- **Respiratory difficulties**
- **Rattly respirations**
- **Pain**
- **Subcutaneous cannula check**
- **Subcutaneous infusion check**

#### Routine Comfort Measures

- **Comfortable positioning**
- **Mouth care - clean and moist**
- **Eye care - clean and moist**
- **Skin care**
- **Micturition - dry and comfortable**
- **Bowel care**

#### Psychosocial

- **Procedures explained**
- **Information regarding changes provided**
- **Any new concerns responded to**
- **Spiritual, religious, cultural needs / rituals identified and facilitated**

---

**Initials**
# Section 3: Part B - Comfort Care Chart

- Record an entry against each item, as appropriate
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**Score each box:**  
- A = assessed and no action required  
- F/A = further action required  
- R/C = routine care  
- NA = not applicable

<table>
<thead>
<tr>
<th>Date:</th>
<th>0200</th>
<th>0400</th>
<th>0600</th>
<th>0800</th>
<th>1000</th>
<th>1200</th>
<th>1400</th>
<th>1600</th>
<th>1800</th>
<th>2000</th>
<th>2200</th>
<th>2400</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symptom Management</strong></td>
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<td>Agitation</td>
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<tr>
<td>Nausea / vomiting</td>
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<td>Respiratory difficulties</td>
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<td>Rattly respirations</td>
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<tr>
<td>Subcutaneous cannula check</td>
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<td>Subcutaneous infusion check</td>
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<tr>
<td><strong>Routine Comfort Measures</strong></td>
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<td>Comfortable positioning</td>
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<tr>
<td>Mouth care - clean and moist</td>
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<td>Eye care - clean and moist</td>
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<td>Skin care</td>
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<tr>
<td>Micturition - dry and comfortable</td>
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<tr>
<td>Bowel care</td>
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<tr>
<td><strong>Psychosocial</strong></td>
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<tr>
<td>Procedures explained</td>
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<tr>
<td>Information regarding changes provided</td>
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<td>Any new concerns responded to</td>
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<tr>
<td>Spiritual, religious, cultural needs / rituals identified and facilitated</td>
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</tbody>
</table>

**Initials**
Section 3: Part B - Comfort Care Chart

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<table>
<thead>
<tr>
<th>Date:</th>
<th>0200</th>
<th>0400</th>
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<tbody>
<tr>
<td><strong>Symptom Management</strong></td>
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<td>Agitation</td>
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<tr>
<td>Nausea / vomiting</td>
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<td>Micturition - dry and comfortable</td>
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<td>Information regarding changes provided</td>
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<td>Spiritual, religious, cultural needs / rituals identified and facilitated</td>
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Initials
### Section 3: Part B - Comfort Care Chart

- Record an entry against each item, as appropriate
- Minimum documentation is 4 hourly, though
- Psychosocial issues may only need assessment twice daily
- Further Actions (F/A) taken, other than routine care (R/C) to be recorded on the 'Further Care Action Sheet' (Sec 3 Part C)
- A new chart is to be commenced each day

<table>
<thead>
<tr>
<th>Score each box:</th>
<th>A = assessed and no action required</th>
<th>F/A = further action required</th>
<th>R/C = routine care</th>
<th>NA = not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>0200     0400     0600     0800  1000  1200  1400  1600  1800  2000  2200  2400</td>
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</tbody>
</table>

### Symptom Management

- Agitation
- Nausea / vomiting
- Respiratory difficulties
- Rattly respirations
- Subcutaneous cannula check
- Subcutaneous infusion check

### Routine Comfort Measures

- Comfortable positioning
- Mouth care - clean and moist
- Eye care - clean and moist
- Skin care
- Micturition - dry and comfortable
- Bowel care

### Psychosocial

- Procedures explained
- Information regarding changes provided
- Any new concerns responded to
- Spiritual, religious, cultural needs / rituals identified and facilitated

**Initials**
### Section 3: Part C - Further Care Action Sheet

- Please record Further Actions (F/A) taken on this sheet.
- If your facility uses medication stickers to record symptom management, they can be applied to this page.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>What occurred</th>
<th>Action taken</th>
<th>Initials</th>
<th>Time</th>
<th>Was action effective?</th>
<th>If ‘No’, what further action was taken?</th>
<th>Initials</th>
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</thead>
<tbody>
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</table>
Section 3: Part C - Further Care Action Sheet

- Please record Further Actions (F/A) taken on this sheet.
- If your facility uses medication stickers to record symptom management, they can be applied to this page.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>What occurred</th>
<th>Action taken</th>
<th>Initials</th>
<th>Time</th>
<th>Was action effective?</th>
<th>Initials</th>
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For illustrative purposes only
For illustrative purposes only
Provided for information only - Contact HIU@health.qld.gov.au
Section 4: Multidisciplinary Communication Sheet

Please use this sheet for documenting additional information and interventions.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Comments</th>
<th>Initials</th>
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### Section 5: After Death Care

The following information may already be documented in the resident’s chart. Please check that the information in the chart is current and document any changes as necessary.

<table>
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<tr>
<th>Date of death:</th>
<th>Time of death:</th>
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<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Pending</th>
<th>N/A</th>
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- Resident’s representative* informed of death
- GP informed of death
- Procedures for ‘final act of care’ according to RACF policy
- Infusion device removed and returned
- Resident inventory completed
- Removal of deceased resident from RACF according to policy
- Staff / residents informed of death as appropriate
- Bereavement leaflet / information given to NOK or other
- Pharmacy informed of death
- Allied Health Professionals informed of death
- Loan equipment returned

*If recording a ‘no’ or ‘pending’ response, please document reasons for this on the multidisciplinary communication sheet to facilitate follow up action.

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<tr>
<th>Print name</th>
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<th>Date</th>
<th>Time</th>
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*substitute decision maker
**Residential Care Facility Falls Assessment and Management Plan**

**Facility:**

**URN:**

**Family name:**

**Given name(s):**

**Address:**

**Date of birth:**

**Sex:**

- M
- F
- I

---

### Falls Risk Assessment

Identify risk factors
Tick (✔) Yes or No

(If Yes to any, care recipient is ‘at risk’ of a fall)

If YES to any

Initial actions
Tick when actioned (if indicated)

**Risk Factors**

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<th>Date</th>
<th>Time</th>
<th>Initial</th>
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#### Screen:

- The care recipient has had a fall in the last 6 months
  - Yes
  - No

- The care recipient is observed to be unsteady
  - Yes
  - No

- The care recipient uses a non-prescribed mobility aid
  - Yes
  - No

- The care recipient has a neurological disorder that affects balance; or uses a mobility aid and has not been reviewed within 12 months
  - Yes
  - No

- The care recipient is visually impaired
  - Yes
  - No

- The care recipient requires supervision or assistance with transfers or ADL
  - Yes
  - No

- The care recipient has new onset incontinence
  - Yes
  - No

- The care recipient has existing incontinence, frequency or requires assisted toileting
  - Yes
  - No

- The care recipient reports postural symptoms (e.g. regular dizziness, light headedness, recent history of syncope)
  - Yes
  - No

- The care recipient is on one of the following medications: antihypertensive, antidepressant, sedative, antipsychotic, antipsychotic
  - Yes
  - No

- The care recipient is on more than 4 medications
  - Yes
  - No

- The care recipient has a minimal trauma fracture and / or history of osteoporosis
  - Yes
  - No

- The care recipient has new onset or increased confusion / delirium
  - Yes
  - No

- The care recipient is usually confused
  - Yes
  - No

---

**Following assessment, inform care recipient / carers of assessment outcome; and proceed to develop management plan (page 2)**
Residential Care Facility
Falls Assessment and Management Plan

**Falls Prevention Management Plan**

All clinicians who initial are to sign signature log

<table>
<thead>
<tr>
<th>Category</th>
<th>Key</th>
<th>Allied Health</th>
<th>Medical</th>
<th>Nursing</th>
<th>Pharmacy</th>
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</thead>
<tbody>
<tr>
<td>Communication</td>
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<tr>
<td>Environment / Equipment</td>
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<tr>
<td>Observations</td>
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<tr>
<td>Allied Health / Medical Review (e.g. MO, Physio, OT, Podiatry, Dietitian, Pharmacist)</td>
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**Initial when strategies are implemented**

- Care plans never replace clinical judgement. Care outlined must be altered if not clinically appropriate for the individual care recipient.
- M indicates a variance from clinical care and must be documented in the clinical notes.

- In partnership with care recipient and / or carer discuss falls risk factors and plan of care to prevent falls.
- Instruct care recipient to call for assistance when getting out of bed / mobilising (if required).
- Communicate care recipient’s ‘at risk’ status at handover.
- GP review of antiplatelet / anticoagulant medication for at risk care recipients.

- Orientate to surroundings, routine and location of bathroom and toilet.
- Ensure clutter free and safe environment (e.g. night time lighting).
- Ensure the chair and bed height / position are suitable for the care recipient’s needs.
- Apply brakes to bed, wheelchair and commode correctly.
- Ensure bed rails are at appropriate height for care recipient’s needs, if prescribed.
- Keep buzzer in reach; educate care recipient on buzzer usage.
- Keep care recipient’s routine belongings within reach.
- Keep care recipient’s mobility aid well maintained and within reach if applicable.
- Review care recipient footwear and / or foot problems.

- Ensure frequent rounding and surveillance.
- Consider supervision during toileting / showering / mobilisation.
- Ensure suitable toileting protocols are in place.
- Implement Allied Health recommendations.

**Allied Health / Medical Review**

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<th>Specific care recipient required</th>
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**Signature Log**

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<th>Initial</th>
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<th>Designation</th>
<th>Signature</th>
<th>Initial</th>
<th>Print name</th>
<th>Designation</th>
<th>Signature</th>
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Page 2 of 2
Residential Care Facility
Post Fall Clinical Pathway

- Clinical pathways never replace clinical judgement
- Care outlined in this clinical pathway must be altered if it is not clinically appropriate for the individual care recipient
- This pathway is to be used for any care recipient who has had a fall
- Indicates a variance from the pathway, document in clinical notes

Immediate actions
- Commence DRSABCD (Danger, Response, Send for help, Airway, Breathing, CPR, Defibrillate - if available) or as per local procedure
- Call for assistance
- Do not move the resident until assessed for injuries and safety
- Observe for symptoms of head and / or muscular skeletal injury e.g. any change in behaviour, change in level of consciousness, headache or vomiting, any deterioration - call 000 where required and / or immediately verbally contact GP for advice

Details of fall and initial actions

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time found:</th>
<th>Respiratory rate:</th>
<th>O$_2$ Saturation:</th>
<th>Blood pressure:</th>
<th>Heart rate:</th>
<th>GCS score:</th>
<th>Temperature:</th>
<th>BGL:</th>
</tr>
</thead>
</table>

Was the resident unconscious?  □ Yes □ No
Obvious major skeletal deformity / fracture / injury? □ Yes □ No
Major head trauma? □ Yes □ No
Did the resident show signs of increased confusion? □ Yes □ No

All care givers who initial are to sign signature log

<table>
<thead>
<tr>
<th>Category</th>
<th>Initial</th>
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<tbody>
<tr>
<td>Medical</td>
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<td>Nursing</td>
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</table>

Key
- Medical assessment
- Investigations / observations
- Management plan (within 24 hours)

- Verbal contact the GP
- Verbal notify the GP if any of the following apply to the resident:
  - Known coagulopathy
  - Fall from greater than 1 metre
  - Airway, breathing, cardiac (ABC)
  - Recent surgery / procedure
  - Other

- Document in observation chart at the following intervals
- Suspected head injury or unobserved fall
  What: neuro obs, respiratory rate, O$_2$ saturation, blood pressure, heart rate, BGL (as per local policy)
  Day 1
  1st hourly for 4 hours, if normal
  2nd hourly for 6 hours, if normal
  4th hourly for 8 hours, if normal
  6th hourly for 24 hours, if normal
  or observations as per medical order

- No head injury
  What: respiratory rate, O$_2$ saturation, blood pressure, heart rate, BGL (as per local policy)
  Day 1
  1st hourly for 4 hours, if normal
  2nd hourly for 6 hours, if normal
  4th hourly for 8 hours, if normal
  or observations as per medical order

- If there is a reduction in GCS score of ≥2 points or deterioration of observations (any change in behaviour, headache, vomiting or indications of internal bleed) call 000 immediately and verbally contact GP immediately

- Notify family of incident as soon as possible (as agreed upon with family)
- Document incident and outcomes in care recipient’s clinical record
- Communicate incident, outcomes and planned care at handover / transfer of care
- Review Falls Assessment and Management Plan

Signature log (everyone documenting in this pathway must supply sample of their initials in the signature log below)

<table>
<thead>
<tr>
<th>Initial</th>
<th>Print name</th>
<th>Designation</th>
<th>Signature</th>
</tr>
</thead>
</table>

Page 1 of 2
Residential Care Facility Post Fall Clinical Pathway

**Immediate actions**
- Commence DRSABCD (Danger, Response, Send for help, Airway, Breathing, CPR, Defibrillate - if available) or as per local procedure
- Call for assistance
- Do not move the resident until assessed for injuries and safety
- Observe for symptoms of head and/or muscular skeletal injury e.g. any change in behaviour, change in level of consciousness, headache or vomiting, any deterioration - call 000 where required and/or immediately verbally contact GP for advice

**Resident Fall (witnessed or unwitnessed)**

**Initial assessment**
- Document initial observations
  - respiratory rate, 
  - O₂ saturation, 
  - blood pressure, 
  - heart rate, 
  - GCS, 
  - temperature, 
  - Blood Glucose Level (BGL)
- Document the following:
  - consciousness
  - major head trauma
  - obvious major skeletal deformities / obvious fracture / injury
  - signs of confusion

**Medical assessment**
- Verbally notify GP to conduct assessment
- Verbally notify GP if any of the following apply to the resident:
  - known coagulopathy
  - on anticoagulant / antiplatelet therapy
  - fall from greater than 1 metre height
  - suspected head injury
  - recent surgery / procedure
  - Document who was notified and when

**Investigations / observations**

**No head injury**
- What:
  - respiratory rate, 
  - O₂ saturation, 
  - blood pressure, 
  - heart rate, 
  - BGL (as per local policy)
- When:
  - ¼ hourly for 1 hour, if normal →
  - ½ hourly for 2 hours, if normal →
  - hourly for 8 hours, if normal →
  - 2nd hourly for 6 hours, if normal →
  - 4th hourly for 8 hours.
  - or observations as per medical order

**Suspected head injury or unwitnessed fall**
- What:
  - neuro obs, 
  - respiratory rate, 
  - O₂ saturation, 
  - blood pressure, 
  - heart rate, 
  - GCS (as per local policy)
- When - Day 1:
  - ¼ hourly for 1 hour, if normal →
  - ½ hourly for 2 hours, if normal →
  - hourly for 8 hours, if normal →
  - 2nd hourly for 6 hours, if normal →
  - 4th hourly for 8 hours.
  - or observations as per medical order
- When - Day 2:
  - 6th hourly for 24 hours.
  - or observations as per medical order

**Management plan (within 24 hours)**
- Note that there may be late manifestations of head injury after 24 hours
- Notify family of incident (as agreed upon with family)
- Surgical intervention / treatment plan as per GP order
- Document incident and outcomes in resident’s clinical record
- Log incident report
- Communicate incident, outcomes and planned care at handover
- Review Falls Assessment and Management Plan
Appendix 4: Wound Assessment and Management resources [70]

Pressure Injury Flow Chart

### Assessment
- Undertake a pressure injury risk assessment (e.g., Waterlow, Braden)
- on admission
- at regular intervals
- upon a change in health status
- If a client is found to be ‘at risk’, assess skin at least daily
- Suspected stage 1 pressure injuries should be reassessed 20 minutes after pressure is relieved
- Regularly assess for pain and develop a pain management plan if appropriate

### Wound Bed Management
- Irrigate with warm clean water or normal saline
- Clean the wound gently
- Remove necrotic or debrided tissue
- Mechanical or sharp debridement should only be done by trained clinicians
- Select a dressing which will:
  - maintain a moist wound bed
  - protect the surrounding skin
  - minimise shear, friction & pressure
  - topical negative pressure may benefit stage III & IV ulcers

### Management
- Use a high specification reactive or active support surface for clients with pressure injuries
- Stage II, IV, unstageable or deep tissue injuries require an alternating pressure, low air-loss, continuous low pressure system, or air-fluidized bed; close observation; and a repositioning regime
- Avoid positioning directly on bony prominences or pressure injuries
- Avoid shear and friction
- Limit the amount of time the head of bed is elevated
- Use pillows and foam wedges to elevate or reposition bony prominences e.g. heels, hips
- Avoid positioning directly on bony prominences or pressure injuries
- Reposition as frequently as required, considering response, condition and support surface
- Avoid foam rings, donuts or fluid filled bags
- Limit the amount of time with head of bed elevated
- Avoid potentially irritating substances on the skin
- Avoid maceration of skin – use barrier preparations or creams
- Maintain optimal nutritional status
- Regularly assess for pain and develop a pain management plan if appropriate

### Prevention
- Individuals found at risk should have a preventive plan in place
- Provide a high-specified foam or active support mattress for at risk clients
- Off-load heels for at risk clients
- Avoid positioning directly on bony prominences
- Reassess as frequently as required, considering response, condition and support surface
- Avoid foam rings, donuts or fluid filled bags
- Avoid positioning directly on bony prominences or pressure injuries
- Avoid foam rings, donuts or fluid filled bags
- Limit the amount of time with head of bed elevated
- Avoid potentially irritating substances on the skin
- Avoid maceration of skin – use barrier preparations or creams
- Maintain optimal nutritional status

### Risk factors for a Pressure Injury
- Reduced physical mobility
- Loss of sensation
- Impaired cognition or level of consciousness
- Incontinence
- Poor nutrition or recent weight loss
- Dry skin or skin in constant contact with moisture
- Acute or severe illness

### Symptoms of pressure damage
- Localised heat, oedema, redness
- Skin feels firm or boggy to touch
- Darkly pigmented skin may be maroon or purple rather than red

### Document
- Level of risk and risk factors present
- Prevention strategies
- Wound assessment and management (size, stage, location, tissue, exudate, surrounding skin, interventions)
- Progress and outcome of interventions, including use of a validated healing scale

### Pressure ulcer classification system

<table>
<thead>
<tr>
<th>Stage</th>
<th>Intact skin with non-blanchable redness or localized area, usually over bony prominence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>Partial thickness loss of dermis presenting as a shallow open ulcer with a red or pink wound bed</td>
</tr>
<tr>
<td>Stage II</td>
<td>Full thickness tissue loss in which the area may be painful, firm, boggy, boggy, boggy, warmer or cooler as compared to adjacent tissue</td>
</tr>
<tr>
<td>Stage III</td>
<td>Full thickness tissue loss with exposed bone, tendon or muscle</td>
</tr>
<tr>
<td>Stage IV</td>
<td>Suspected deep tissue injury</td>
</tr>
</tbody>
</table>

### Pressure ulcer classification system

- **Stage I**: Intact skin with non-blanchable redness or localized area, usually over bony prominence. The area may be painful, firm, soft, warm, or cooler as compared to adjacent tissue.
- **Stage II**: Partial thickness loss of dermis presenting as a shallow open ulcer with a red or pink wound bed. May also present as an intact or open/nutrient serum-filled blister. The blister is shiny or a dry, shallow ulcer without slough or draining (if draining is present the blister indicates deep tissue injury).
- **Stage III**: Full thickness tissue loss in which the area may be painful, firm, boggy, boggy, warmer or cooler as compared to adjacent tissue. The area may be preceded by tissue that is painful, soft, warmer or cooler as compared to adjacent tissue.
- **Stage IV**: Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present. Often includes undermining and tunneling. Depth varies according to anatomical location.
- **Suspected deep tissue injury**: Full-thickness tissue loss in which actual depth of the ulcer is completely obscured by slough and/or eschar. Staging cannot be determined until slough and/or eschar is removed.

### References:

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CRICOS No. 00213J

This project is funded by the Australian Government Department of Health and Ageing as part of the Encouraging Better Practice in Aged Care (EBPAC) program.
Skin Tear Management Flow Chart

Assessment
- All clients should have a risk assessment for skin tears on admission
- Assess and document skin tears using a recognised assessment and classification system e.g. STAR
- Assess the surrounding skin for swelling, discolouration or bruising
- If skin flap is pale, dusky or darkened:
  - Reassess in 24-48 hours or at the first dressing change
  - Assessment should only be undertaken by trained staff

Management
- Control bleeding
  - Cleanse the wound gently with warm water or normal saline, pat dry
  - Realign edges if possible
  - Do not stretch the skin
  - Use a moist cotton tip to roll skin into place
- Apply a low adherent, soft-silicone dressing to wound, overlapping the wound by at least 2 cm
- Draw arrows on the dressing to indicate the direction of dressing removal
- Mark the date on the dressing
- Apply limb protector

Prevention
- Assess skin regularly and implement a prevention protocol for those at risk
- Use soap-free bathing products
- Apply moisturiser twice daily
- Use correct lifting and positioning techniques
- Avoid wearing rings that may snag the skin
- Protect fragile skin with either limb protectors or long sleeves or pants
- Pad or cushion equipment and furniture
- Avoid using tapes or adhesives, use tubular retention bandages to secure dressings

Risk factors for a Skin Tear
- History of previous skin tears
- Bruising, discoloured, thin or fragile skin
- Cognitive impairment / dementia
- Impaired sensory perception
- Dependency
- Multiple or high risk medications e.g. steroids, anticoagulants
- Impaired mobility
- Poor nutritional status
- Dry skin / dehydration
- Presence of friction, shearing and/or pressure

STAR classification system
- Category 1a: A skin tear where the edges can be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour is not pale, dusky or darkened.
- Category 1b: A skin tear where the edges can be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour is pale, dusky or darkened.
- Category 2a: A skin tear where the edges cannot be realigned to the normal anatomical position and the skin or flap colour is not pale, dusky or darkened.
- Category 2b: A skin tear where the edges cannot be realigned to the normal anatomical position and the skin or flap colour is pale, dusky or darkened.
- Category 3: A skin tear where the skin flap is completely absent.

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This project is funded by the Australian Government Department of Health and Ageing under the Encouraging Better Practice in Aged Care (EBPAC) program.
Arterial Leg Ulcer Flow Chart

Assessment

History
- Medical
- Medications
- Wound
- Psychosocial / activities of daily living

Characteristics of the wound (see table below)

Diagnostic investigations
All patients with a leg ulcer should be screened for arterial disease, including an Ankle Brachial Pressure Index (ABPI)

* Assessment should only be undertaken by a trained health professional

Wound Bed Management

- Cleanse the wound gently with warm water or normal saline. Pat dry.
- In general, debride necrotic or devitalised tissue; however, do not debride dry gangrene or eschar
  - Debridement should be undertaken only by a trained health professional
- Maintain a moist wound environment, however, dry gangrene or eschar is present it is best left dry
- Topical antimicrobial dressings may be beneficial when wounds are chronically or heavily colonised

Characteristics of an Arterial Leg Ulcer

Arterial leg ulcers typically:
- Occur on the anterior shin, ankle bones, heels or toes
- Have pain which is relieved when legs are lowered below the level of the heart
- Have ‘punched out’ wound edges
- May have mummified or dry and black toes

The surrounding skin or tissue often has:
- Shiny or dry skin
- Devitalised soft tissue with dry or wet crust
- Thickened toe nails
- A purplish colour when the leg is lowered to the ground
- Loss of hair
- Cool skin

Diagnostic investigations
- Ankle Brachial Pressure Index (ABPI)

Management

- Promote oxygenation through avoidance of:
  - smoking
  - dehydration
  - cold
  - stress and pain
- Refer to vascular surgeon for restoration of blood flow by revascularisation, if appropriate
- Ensure optimal pain management strategies

Prevention

- Reduce risk factors:
  - cease smoking
  - control diabetes mellitus
  - control elevated lipids
  - control hypertension
  - anti-platelet therapy
  - control weight
- Refer to vascular surgeon for assessment if appropriate
- Exercise the lower limbs
- Protect legs and feet:
  - ensure soft, conforming, proper fitting shoes
  - refer to podiatrist for general foot care, orthotics and offloading as necessary
  - protect legs (e.g. padded equipment, long clothing)
  - use pressure relief devices e.g. high density foam or air cushion boots for those with limited mobility
- Keep the legs warm (e.g. socks, rugs)
- Eat a nutritious diet
- Exercise the lower limbs
- Protect legs and feet:
  - ensure soft, conforming, proper fitting shoes
  - refer to podiatrist for general foot care, orthotics and offloading as necessary
  - protect legs (e.g. padded equipment, long clothing)
  - use pressure relief devices e.g. high density foam or air cushion boots for those with limited mobility
- Keep the legs warm (e.g. socks, rugs)
- Eat a nutritious diet

References:
- Scottish Intercollegiate Guidelines Network, Diagnosis and management of peripheral arterial disease 2006. Edinburgh: SIGN
- National Clinical Guideline Centre, Lower limb peripheral arterial disease. Diagnosis and management. NICE Clinical Guideline 147, 2012: London
- RNAO, Assessment and management of foot ulcers for people with diabetes. 2005

This project is funded by the Australian Government Department of Health and Ageing under the Encouraging Better Practice in Aged Care (EBPAC) program
Venous leg ulcers typically
Occur on the lower third of the leg
Have pain usually relieved by elevation of the legs above heart level
Are shallow and have irregular, sloping wound margins
Produce moderate to heavy exudate

Characteristics of the wound
Haemosiderin (brown) staining
Hyperkeratosis (dry, flaky skin)
Venous stasis eczema
Inverted champagne bottle leg appearance

Diagnostic investigations:
All patients with a leg ulcer should be screened for arterial disease, including an Ankle Brachial Pressure Index (ABPI)*
Reassess the ABPI every 3 months or if clinically indicated

* Compression therapy is contraindicated if the ABPI is <0.8 or >1.2
* Assessment should only be undertaken by a trained health practitioner

Venous Leg Ulcer Flow Chart

Assessment

History
- Medical
- Medications
- Wound
- Psychosocial / activities of daily living

Characteristics of the wound (see table below)

Diagnostic investigations:
- All patients with a leg ulcer should be screened for arterial disease, including an Ankle Brachial Pressure Index (ABPI)*
- Reassess the ABPI every 3 months or if clinically indicated

* Compression therapy is contraindicated if the ABPI is <0.8 or >1.2
* Assessment should only be undertaken by a trained health practitioner

Wound Bed Management

- Irrigate with warm water or normal saline. Pat dry
- Clean the wound gently (avoid mechanical trauma)
- Remove necrotic or devitalised tissue (e.g. autolytic debridement)
- EMLA® cream can reduce pain associated with debridement
- Mechanical or sharp debridement should only be done by a trained practitioner
- Select a dressing that will:
  - maintain a moist wound bed
  - manage wound exudate
  - protect the surrounding skin

Management

- Multilayered high compression therapy should be applied following diagnosis of an uncomplicated venous leg ulcer
- Compression therapy should only be applied by a trained practitioner
- Check ankle circumference measures more than 18cm
- Apply moisturiser to the lower limb
- Apply padding over bony prominences
- Apply compression system as per manufacturers’ guidelines
- Remove bandaging if there is:
  - slippage of bandage
  - decreased sensation of lower limb
  - toe goes blue or purple, or leg swells above or below the bandage
  - increased pain in the foot or calf muscle that is unreleived by leg elevation for 30 minutes above heart level
  - increased shortness of breath or difficulty breathing
- Monitor Progress: Trace wound before starting compression therapy, then every 2–4 weeks, or when rapid changes occur

Prevention

- Use of compression stockings for life reduces leg ulcer recurrence (Class 3 (40mm Hg) if tolerated, or highest level tolerated)
- A trained practitioner should fit compression stockings
- Replace compression stockings every 6 months
- Provide education to clients and carers on compression stocking application and removal techniques
- Refer to vascular surgeon if appropriate
- Monitor regularly, every 3 months
- Apply moisturiser twice daily
- Elevate the affected limb above heart level daily
- Encourage ankle and calf muscle exercises
- Repeat Doppler ABPI every 3 months, or whenever changing the type of compression therapy

References:
AWMA, Australian and New Zealand Clinical Practice Guidelines for Prevention and Management of Venous Leg Ulcers, 2011
AWMA, Barton ACT
RCN, The management of patients with venous leg ulcers, 2006
RNAO, Assessment and Management of Venous Leg Ulcers, 2004
SIGN, Management of Chronic leg Ulcers, 2010
SIGN, Edinburgh

This project is funded by the Australian Government Department of Health and Aged under the Encouraging Better Practice in Aged Care (EBPAC) program.
Diabetic Foot Ulcer Flow Chart

Assessment

- History
  - Medical
  - Medications
  - Wound
  - Psychosocial / activities of daily living

- Characteristics of the wound
  - Use a validated classification tool

Inspect for foot deformities

Diagnostic investigations*

- Screen all clients for peripheral arterial disease (PAD), including an ankle brachial pressure (ABPI)
- An ABPI less than 0.9 indicates arterial disease
- An ABPI greater than 1.2 indicates a need for further investigation

- Use monofilament testing to assess for loss of sensation and neuropathy
  - Assessment should only be undertaken by a trained health professional

Wound Bed Management

- Cleanse the wound with a neutral, non-irritating solution e.g. warm water or normal saline
- Cleanse wound bed gently to avoid trauma
- Remove necrotic or devitalised tissue, unless revascularisation is needed*
- Mechanical or sharp debridements should only be done by a trained health professional
- Select a dressing which will:
  - Maintain a moist wound environment (except where dry gangrene or eschar is present)
  - Protect the surrounding skin
  - Manage wound exudate
  - Topical antimicrobial dressings will help chronically or heavily colonised wounds

Management

- Reduce pressure – offload pressure points e.g. use crutches, wheelchairs, custom shoes or inserts, orthotic walkers, diabetic boots, or total contact casts
- Promote oxygenation of the wound by avoiding dehydration, smoking, cold, stress and pain
- Optimise glucose control
- Regularly document progress in healing
- Re-evaluate treatment if failure to achieve 40% ulcer size reduction after 4 weeks

Prevention

- Assess all clients with diabetes for PAD, neuropathy and foot deformity and classify the level of risk
- Protective footwear is required for those at risk, i.e. with PAD, neuropathy, callus, foot deformity and/or previous ulceration
- Offload pressure points as detailed under ‘Management’
- Practise good foot care and daily inspection of feet
- Ensure an annual foot examination by a health professional (3 – 6 monthly if at moderate or high risk)
- Monitor and optimise blood glucose levels
- Quit smoking

When to Refer

Uncertainty of diagnosis
- There is a low or high ABPI
- Symptoms impact on quality of life
- Complicated ulcers e.g. multiple aetiology
- Signs of infection or wound probes to bone
- No progress in healing or deterioration of ulcer

Characteristics of a Diabetic Foot Ulcer

Diabetic ulcers typically:
- Occur on the sole of the foot or over pressure points e.g. toes
- The wound bed can be shallow or deep, producing low to moderate amounts of exudate
- The surrounding skin is usually dry, thin and frequently has callous formation

References:


*Assessment should only be undertaken by a trained health professional

Monofilament testing to check sensation

This project is funded by the Australian Government Department of Health and Ageing under the Encouraging Better Practice in Aged Care (EBPAC) program.

Provided for information only - Contact HIU@health.qld.gov.au
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70. Promoting Healthy Skin: Champions for skin integrity. QUT & Institute of Health & Biochemical Innovation. Australian Government DOHA.